Cisco TelePresence System Hardware Options & Upgrade Guide

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Cisco TelePresence System
Hardware Options & Upgrade Guide
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Preface

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Introduction

The *Cisco TelePresence System Hardware Options & Upgrade Guide* outlines the steps and best practices to install additional items for the Cisco TelePresence Systems 1000, 3000, and 3200 and perform an upgrade from the Cisco TelePresence System 3000 to the Cisco TelePresence System 3200.

This guide is intended primarily for installers of the Cisco TelePresence System. Site planners, network administrators, and facility maintenance personnel may also find this document useful.

Conventions

This document uses the following conventions to convey information and alert the user to conditions requiring special awareness.

Warning **This warning symbol means danger. You are in a situation that could cause bodily injury. Before you work on any equipment, you must be aware of the hazards involved with electrical circuitry and familiar with standard practices for preventing accidents.**

Caution Means *reader be careful*. In this situation, you might do something that could result in equipment damage or loss of data.

Note Means *reader take note*. Notes contain helpful suggestions or references to material not covered in the publication.

Tip Means *the information contains useful tips.*

Obtaining Documentation, Obtaining Support, and Security Guidelines

For information on obtaining documentation, submitting a service request, and gathering additional information, see the monthly *What's New in Cisco Product Documentation*, which also lists all new and revised Cisco technical documentation, at:

http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html

Subscribe to the *What's New in Cisco Product Documentation* as a Really Simple Syndication (RSS) feed and set content to be delivered directly to your desktop using a reader application. The RSS feeds are a free service and Cisco currently supports RSS version 2.0.

Related Documentation

The Cisco TelePresence system documentation set includes a variety of online and printed guides designed to aid the assemblers, installers, system administrators, and users in the setup, configuration, administration, and use of the Cisco TelePresence. These documents include:

- *Cisco TelePresence System 1000 Assembly, Use & Care, and Field Replacement Unit Guide*, OL-16247-01. There is also a pointer document for this guide, 78-17800-02.
- *Cisco TelePresence System 3000 Assembly, Use & Care, and Field Replacement Unit Guide*, OL-16246-01. There is also a pointer document for this guide, 78-17795-02.
- *Cisco TelePresence System 3200 Assembly, Use & Care, and Field Replacement Unit Guide*, OL-14521-01. There is also a pointer document for this guide, 78-18735-01.
- *Cisco TelePresence and Cisco Unified Communications Manager Installation and Configuration Guide*, OL-11326-02
- *Cisco TelePresence System Release 1.4 Administrator's Guide*, OL-13676-03
- *Release Notes for Cisco TelePresence System, Release 1.4*, OL-12074-05
- *Cisco TelePresence Meeting User's Guide*, 78-17791-01
- *Cisco TelePresence System Release 1.4 Meeting Quick Reference*, 78-17792-02
- *Cisco TelePresence Manager Release 1.3 Administration and Installation Guide*, OL-13673-02
- *Release Notes for Cisco TelePresence Manager Release 1.3.x*, OL-12074-04

All of these documents are available at the Cisco documentation website.

CHAPTER 1

Options for the Cisco TelePresence System 500

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Cisco Digital Media Player

The Cisco Digital Media Player (DMP) is a highly reliable, IP-based hardware endpoint that enables digital signage and Enterprise TV through the ability to play high-definition live and on-demand video, motion graphics, Web, and dynamic content on digital displays.

For more information about the DMP, refer to this URL:

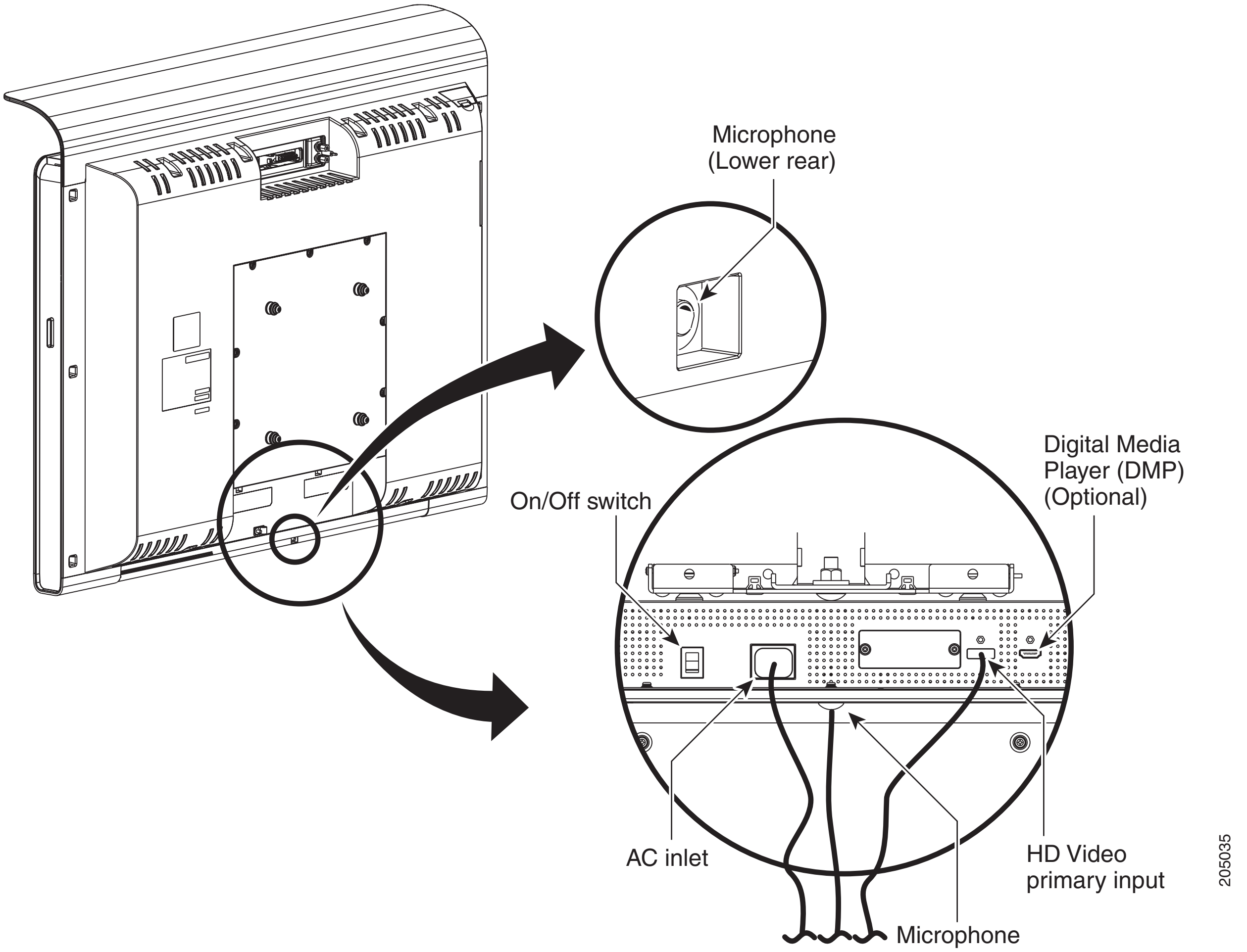
http://www.cisco.com/en/US/products/ps7220/tsd_products_support_series_home.html

You can use DMPs with the Cisco Digital Media System (DMS). For more information about the DMS, refer to this URL:

http://www.cisco.com/en/US/products/ps6681/products_documentation_roadmaps_list.html

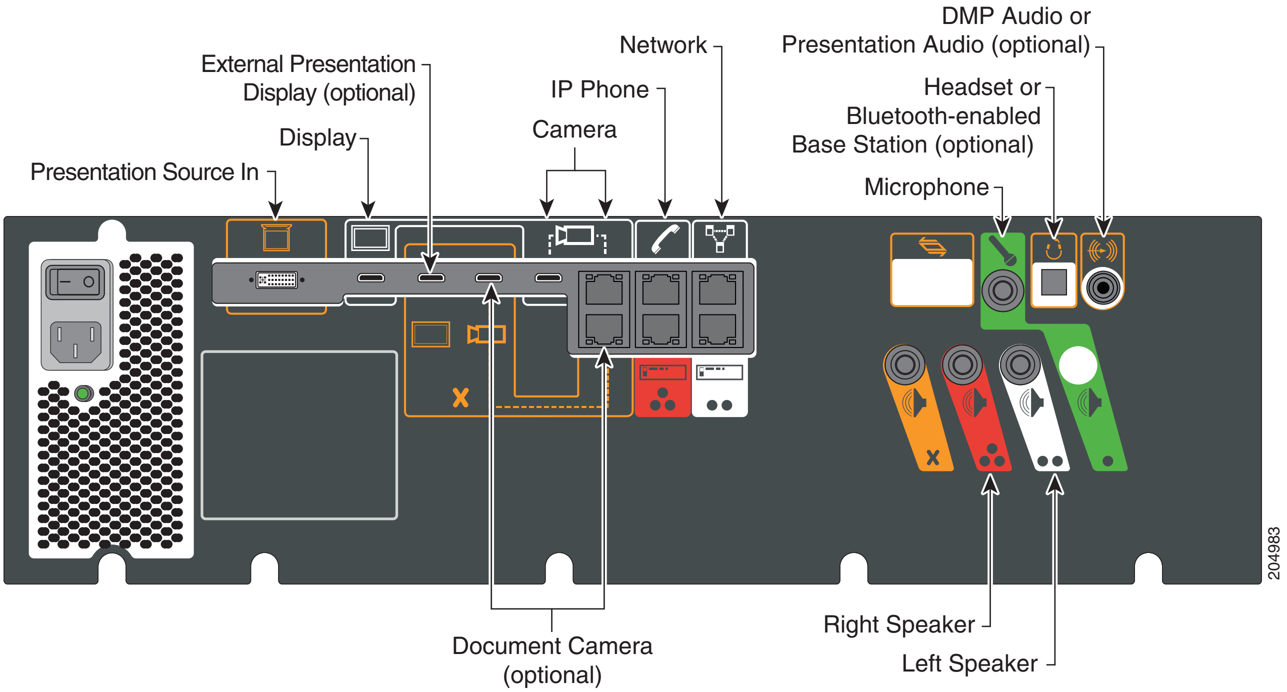
Connect the video for the DMP to the Digital Media Player (DMP) HD video connection on the CTS-500 display. See Figure 1-1 for the connection.

Figure 1-1 HD Video Connection for Digital Media Player


Microphone (Lower rear)
Digital Media Player (DMP) (Optional)
On/Off switch
AC inlet
HD Video primary input
Microphone
205035

Connect the audio for the DMP to the DMP Audio connection on the codec. See Figure 1-2 for the connection.

Figure 1-2 Audio Connection for DMP


DMP Audio or
Presentation Audio (optional)
Network
External Presentation
Display (optional)
IP Phone
Headset or
Bluetooth-enabled
Base Station (optional)
Camera
Display
Presentation Source In
Microphone
204983
Right Speaker
Document Camera
(optional)
Left Speaker

To configure the DMP audio for use with Cisco TelePresence, refer to the "Testing the LEDs and Light Fixture and Configuring the Digital Media Player Audio" section of the "First-Time Setup" chapter of the *Cisco TelePresence System 500 Assembly, Use & Care, and Field Replaceable Unit Guide*.

Cisco TelePresence Presentation Codec

The Presentation Codec provides 30 frames per second capabilities to support full-motion video presentations between Cisco TelePresence endpoints.

Parts List for Presentation Codec

Key	Part Description	Part Number	Qty	Notes
Presentation Codec, 800-28202-xx				
1	Secondary (Presentation) codec	800-28202-xx	1	
2	Handle/Mounting bracket	700-23917-01	2	
3	Rear cover	700-27340-01	1	
4	Mounting base	800-31148-01	1	
5	Left end cap	700-27642-01	1	
6	Top Cover	700-27343-01	1	

Key	Part Description	Part Number	Qty	Notes
7	Right end cap	700-27344-01	1	
8	M4 x 6mm flat head screws	48-0448-01	4	
9	M5 x 12mm hex head screws	48-1936-01	4	
10	M4 x 10mm pan head screws	48-1948-01	4	

Adding a Standalone Presentation Codec

To add the Cisco TelePresence Presentation Codec to the CTS-1000, complete the following procedure:

Procedure

Step 1 Power off the system by performing the following steps:

a. Get the IP address for the system codec as follows:

1. On the IP phone, locate Manual at the bottom of the screen and press the Manual soft key.

Note If you cannot locate the Manual soft key, continue to Step 2.

2. Locate Info at the bottom of the screen and press the Info soft key.
3. Scroll down to the IP Address listing and copy the address.

b. Open a browser on a computer that is connected to the network.

c. In the URL field, type the IP address for the system codec and press **Enter**. The browser launches the Cisco TelePresence System Administrator.

d. In the Admin field, type **admin**.

e. In the Password field, type **cisco**.

Note If your administrator has changed the user name or password, enter those values.

f. Click **Login**.

g. Locate the Phone pane in the upper left-hand corner of the administrator page and select **Troubleshooting > System Reset**. the Restart Cisco TelePresence System button appears at the top of the window.

h. Click the **Restart Cisco TelePresence System** button to start the reset.

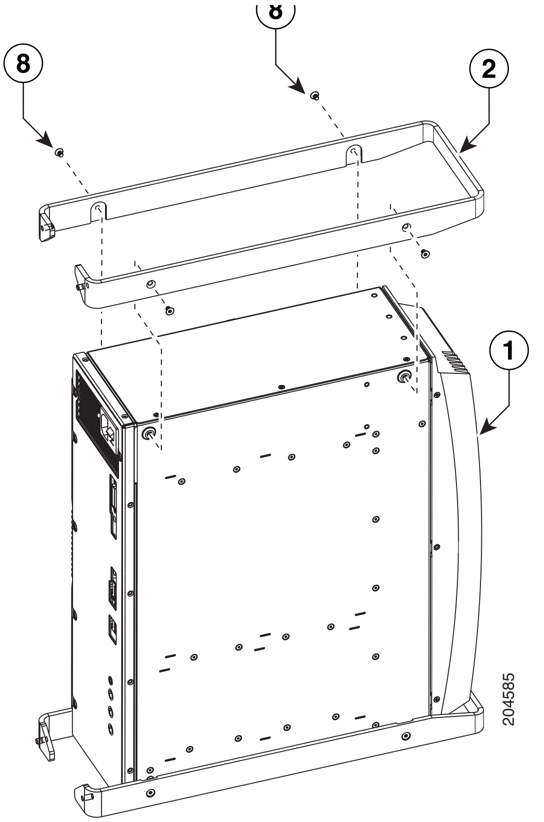
The monitor goes dark and, the encircled numbers one through six appear at the bottom of the display screen on the left-hand side.

i. After the first number changes to a check mark, unplug the system power cord from the wall socket.

Step 2 Remove the presentation codec from its packaging.

Step 3 Remove the right handle/mounting bracket from the presentation codec.

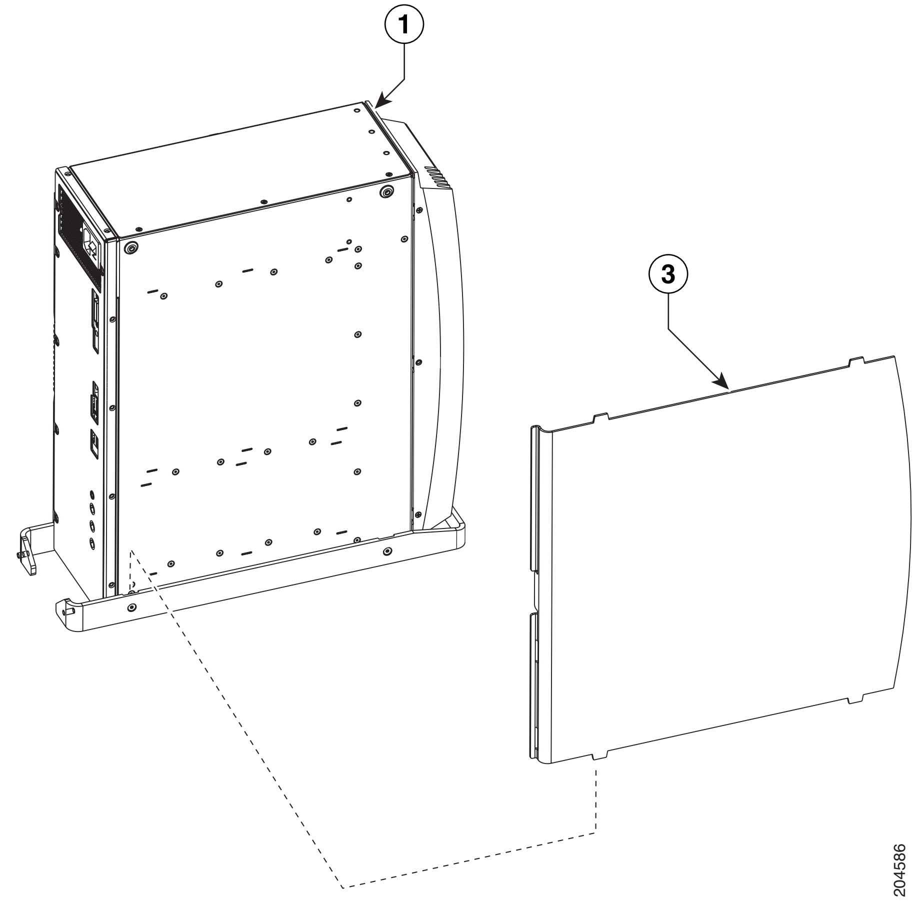
Figure 1-3 Removing the Right Handle/Mounting Bracket



Note Place the codec and base so that the cables can reach the CTS-500 codec.

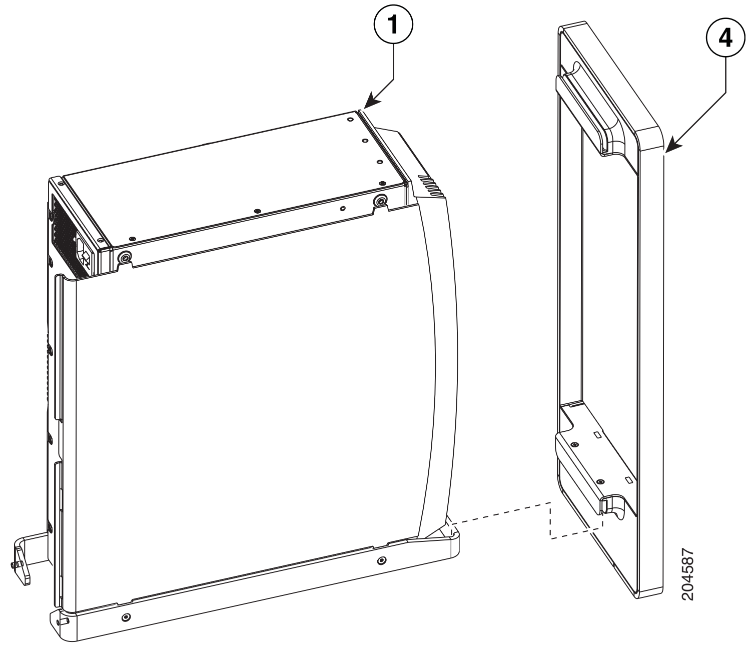
Step 4 Insert the tab of the rear cover in the slot between the left handle/mounting bracket and the codec.

Figure 1-4 Rear Cover and Left Handle/Mounting Bracket



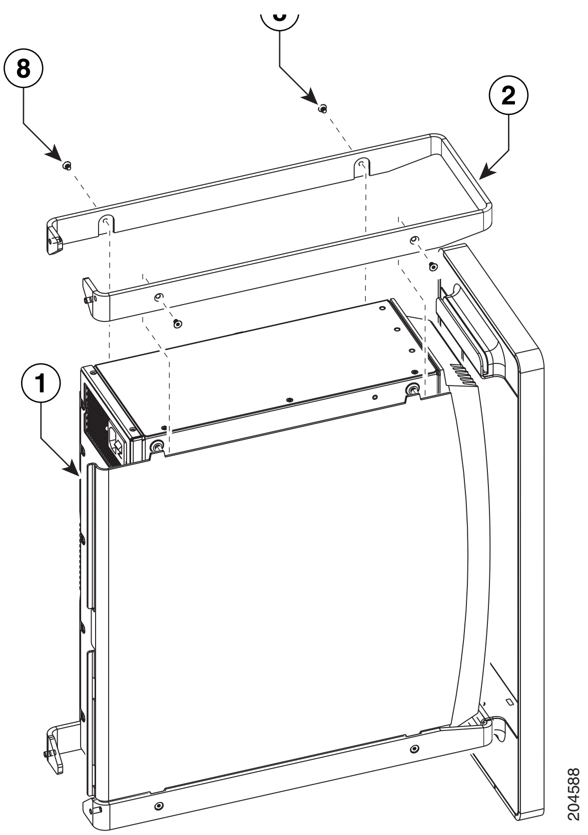
Step 5 Insert the lower part of the left handle/mounting bracket into the mounting base.

Figure 1-5 Left Handle/Mounting Bracket and Mounting Base



Step 6 Reattach the right handle/mounting bracket to the codec assembly.

Figure 1-6 Right Handle/Mounting Bracket and Codec Assembly



Step 7 Access the CTS-500 codec by performing one of the following actions:

- For a pedestal stand-mounted CTS-500, lift and remove the codec cover. See Figure 2-14 for more information.
- For a wall-mounted or table stand-mounted CTS-500, remove the codec handle, slide the codec to the center, and disconnect the codec from the base.

Tip Removal is the opposite of installation; it can be helpful to review the codec installation instructions in the *Cisco TelePresence System 500 Assembly, Use & Care, and Field Replaceable Unit Guide*.

Step 8 Attach and route the cables between the CTS-500 and presentation codec.

Figure 1-7 shows you the cabling diagram for a CTS-500 with a presentation codec.

Figure 1-7 Power and Signal Cabling for Presentation Codec

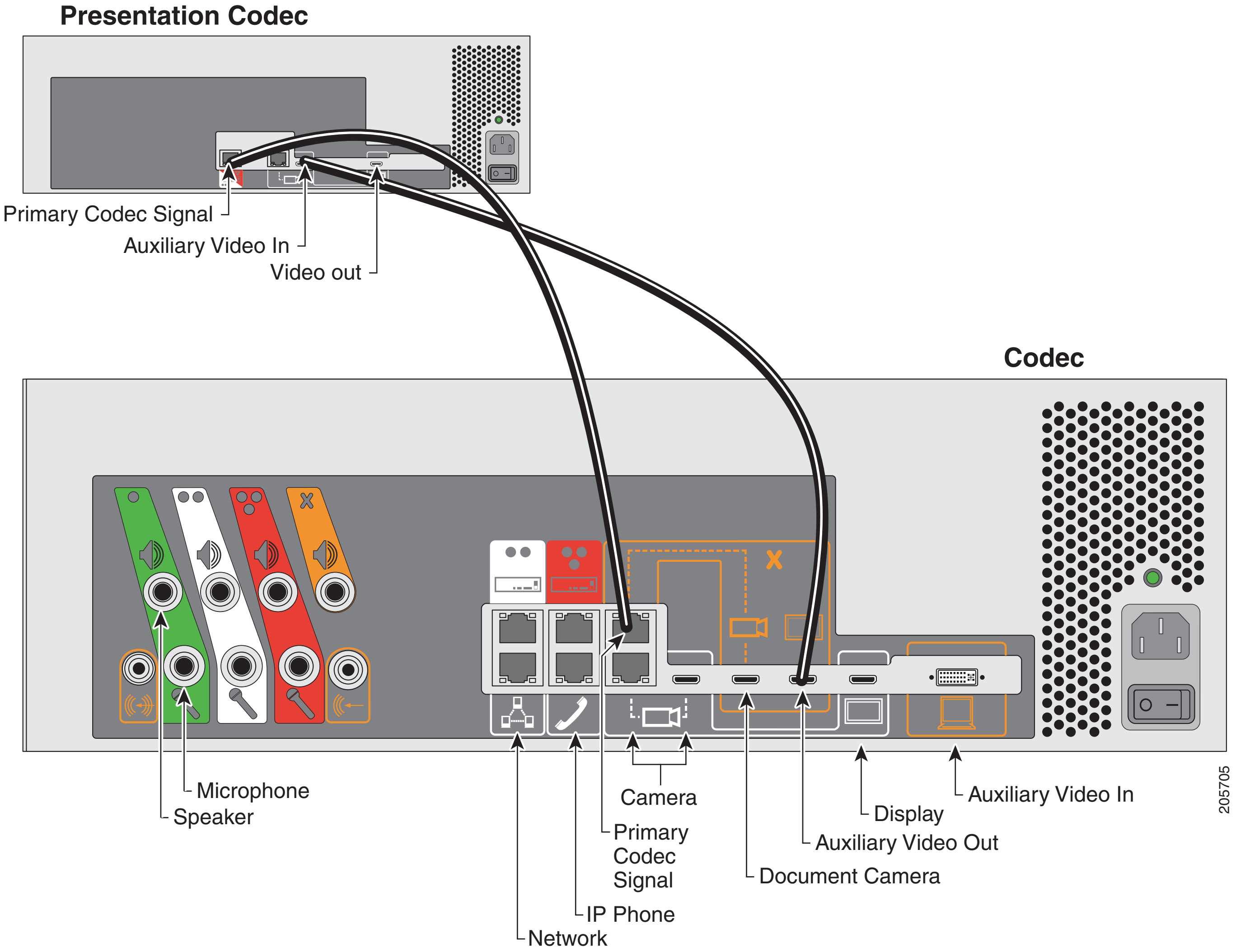
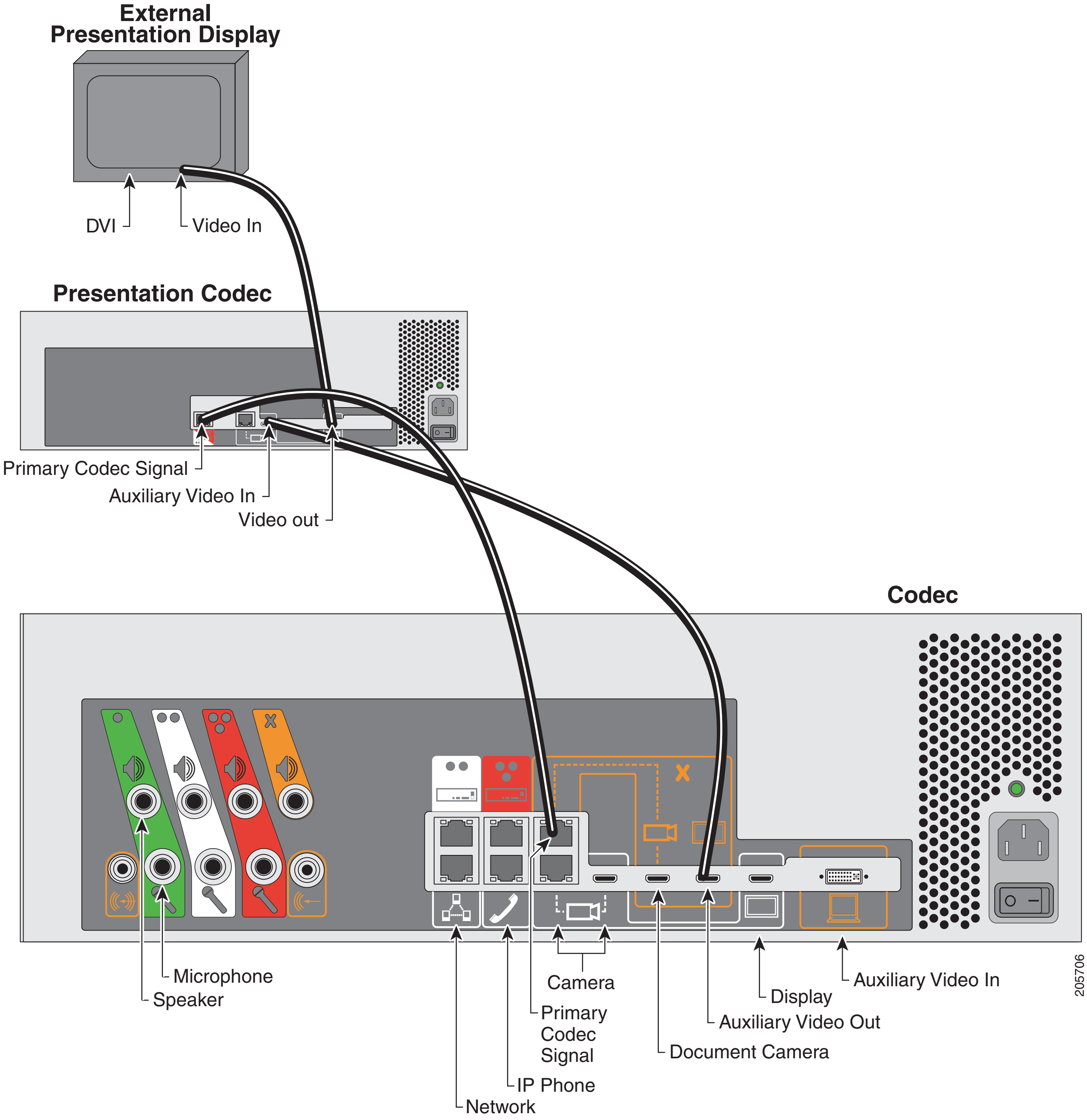

Presentation Codec
Primary Codec Signal
Auxiliary Video In
Video out
Codec
Microphone
Speaker
Camera
Primary Codec Signal
IP Phone
Network
Document Camera
Auxiliary Video Out
Display
Auxiliary Video In
205705

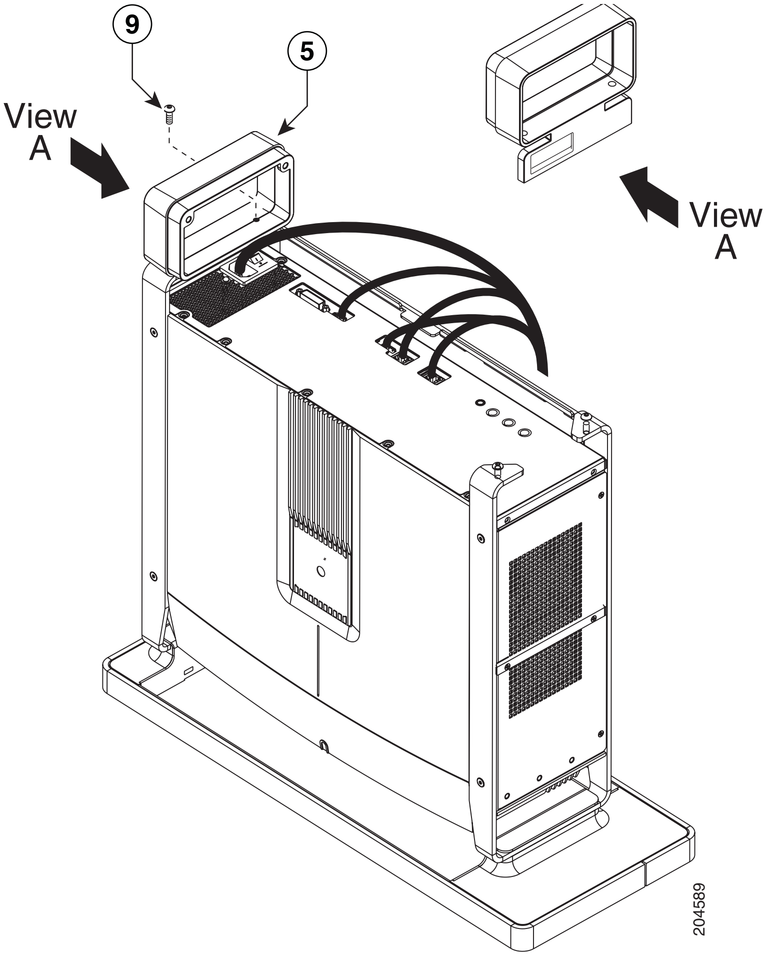
Figure 1-8 shows you the cabling diagram for a CTS-500 with a presentation codec and an external display. You use the display for shared presentations. Connect the presentation source to the codec using the DVI-to-VGA cable; plug the DVI connection into the Auxiliary Video In connection.

Figure 1-8 Cabling Diagram—CTS-500 with Presentation Codec and External Presentation Display


External Presentation Display
DVI
Video In
Presentation Codec
Primary Codec Signal
Auxiliary Video In
Video out
Codec
Microphone
Speaker
Camera
Primary Codec Signal
IP Phone
Network
Display
Auxiliary Video In
Auxiliary Video Out
Document Camera
205706

Step 9 Place the left end cap on the presentation codec assembly.

Figure 1-9 Left End Cap



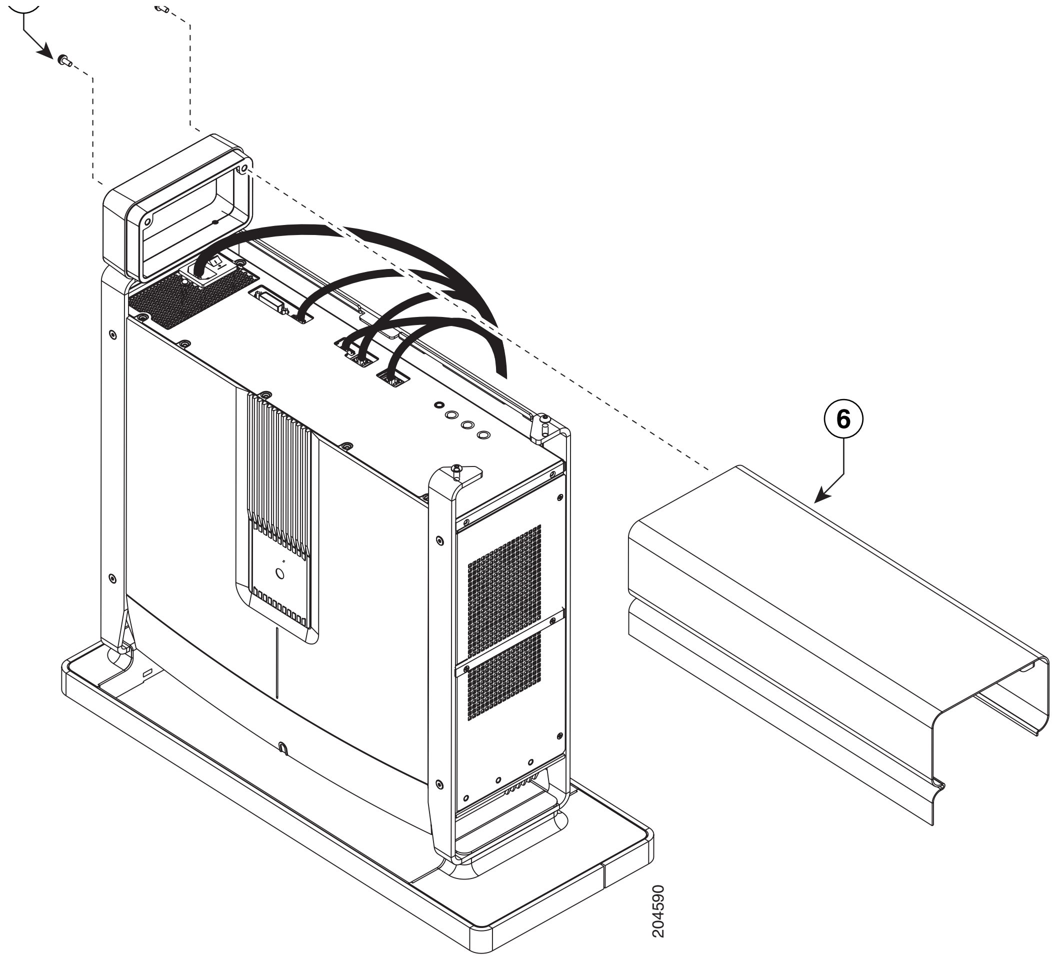
Step 10 Attach the top cover to the presentation codec assembly and route the cables through the hole in the rear center of the cover.

Note The hole for the cables is not visible in Figure 1-10; it faces the rear of the codec.

Tip If your installation does not have enough space behind the codec to route the cables through the hole in the top cover, route the cables through either the left or right end cap.

Note Tighten the screws until they are snug but do not overtighten.

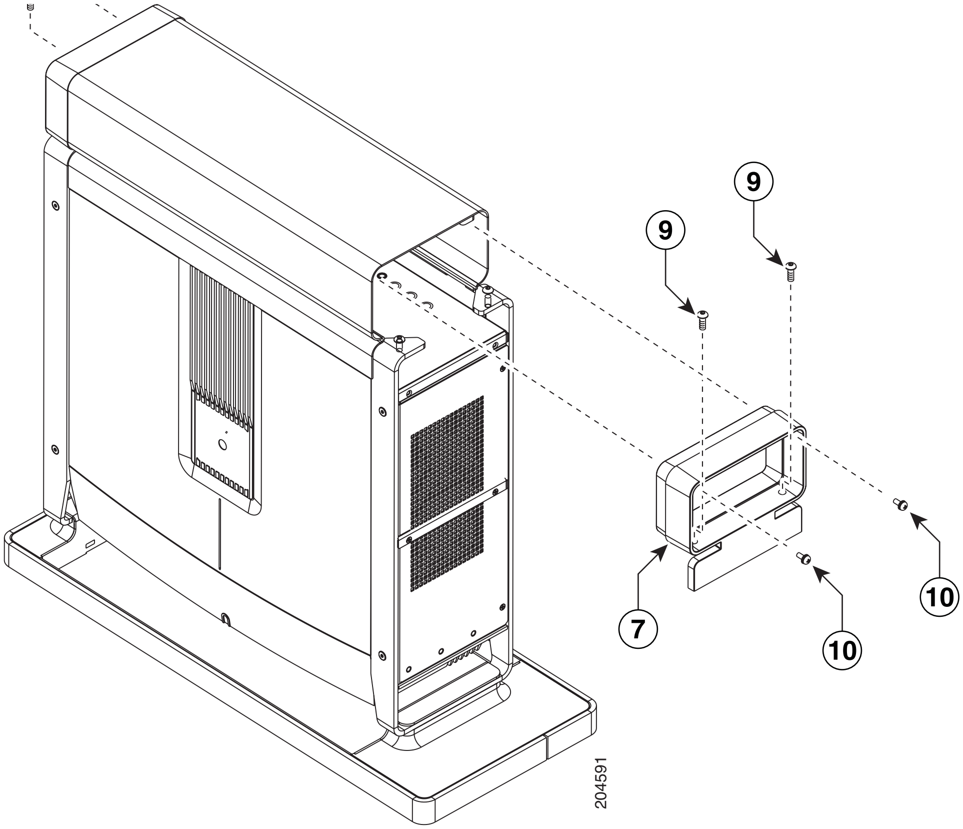
Figure 1-10 Top Cover



Step 11 Attach the end caps to the presentation codec assembly.

Note Tighten the screws until they are snug but do not overtighten.

Figure 1-11 *Right End Cap*



Step 12 Power on the CTS-500 system.

Note You might have to reboot your presentation codec several times before it becomes active. For information about rebooting the CTS-500, refer to the "Field-Replacement and Upgrade Disassembly Instructions" chapter of the *Cisco TelePresence 500 Assembly, Use & Care, and Field-Replacement Unit Guide*.

Adding a Cisco TelePresence Presentation Codec with a Auxiliary Control Unit

To add a presentation codec to an CTS-500 with an auxiliary control unit, complete the steps in the "Adding a Standalone Presentation Codec" section on page 1-4 and perform the following additional cabling steps:

- Connect the Primary Codec Document Camera Ethernet connection (orange Ethernet connection on the primary codec) to one Ethernet port of the auxiliary control unit.

- Connect the other Ethernet port of the auxiliary control unit to the Presentation Codec Ethernet port (white/red Ethernet connection on the presentation codec).

Note The Ethernet ports in the auxiliary control unit are interchangeable. Use either of the ports for the connections from the primary codec and the presentation codec.

Configuring a Cisco TelePresence Presentation Codec

To configure the presentation codec, refer to *Cisco TelePresence System Administrator's Guide* for your software release.

CHAPTER 2

Options for the Cisco TelePresence System 1000

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Auxiliary Control Unit

The auxiliary control unit provides the ability to conserve energy by powering the Cisco TelePresence System 1000 (CTS-1000) lights on and off. There is one power inlet, five controlled power outlets, and one power outlet that is not controlled (unswitched). In addition, there are two serial ports and an incoming and outgoing Ethernet connection that allows you to control peripheral items. The auxiliary control unit is controlled by your CTS-1000 Administrator and can be configured to:

- Turn the CTS-1000 lights on during a Cisco TelePresence call and turn the lights off after the call completes, or to stay on for a period of time after a call completes.
- Turn the CTS-1000 lights on according to a configured time schedule.
- Leave the CTS-1000 lights on continuously.

Parts List for Auxiliary Control Unit

Key	Part Description	Part Number	Qty	Notes
Audio/Video Expansion Unit, CTS-LIGHT-CTRL, 74-5405-01				
1	Auxiliary Control Unit	74-5405-01	1	
2	Bracket for auxiliary control unit	700-27073-01	2	
3	Cat6 Ethernet Cable, 3M	37-0887-02	2	
4	Cat6 Ethernet Cable, 1M	37-0901-01	2	
5	Serial Cable, 6M	37-0980-01	1	
6	Cable Tie	51-4641-01	25	
7	Cable Holder, 1 inch x 1 inch	51-4712-01	25	
8	M5 x 10mm pan head screws	48-0426-01	5	
9	Wood screws	N/A	2	To be supplied by the customer.

Adding a Standalone Auxiliary Control Unit

To install the auxiliary control unit on your CTS-1000, complete the following steps.

Step 1 Power off the system by unplugging the system power cord from the wall socket.

Step 2 Remove the front panel from the frame by completing the following steps:

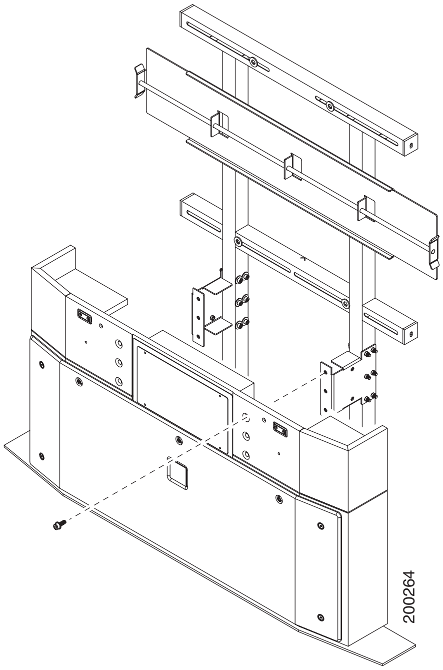
a. Remove the black speaker grille from the top of the front panel by grasping the sides until the pins pop out of the holes.

b. Using a #3 Phillips screwdriver, remove the six screws next to the speaker (three on either side).

c. Pull the front panel away from the frame.

d. Disconnect the lighting unit from the PDU.

Figure 2-1 Removing the Front Panel From the Frame



Step 3 Attach the auxiliary control unit to its bracket using the supplied 5 mm screws.

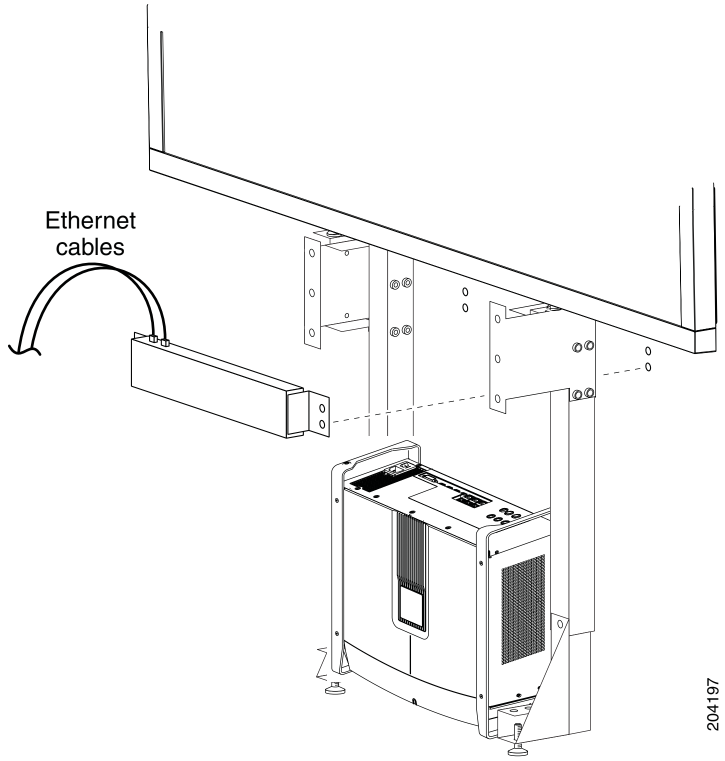
Note Attach the bracket so that the shortest part of the bracket attaches to the wall; otherwise the unit is too wide to fit between the display supports.

Step 4 If your installation uses a presentation codec, connect the Ethernet cable to the auxiliary control unit as follows:

- Connect the Primary Codec Document Camera Ethernet connection (orange Ethernet connection on the primary codec) to one Ethernet port of the auxiliary control unit.
- Connect the other Ethernet port of the auxiliary control unit to the Presentation Codec Ethernet port (white/red Ethernet connection on the presentation codec).

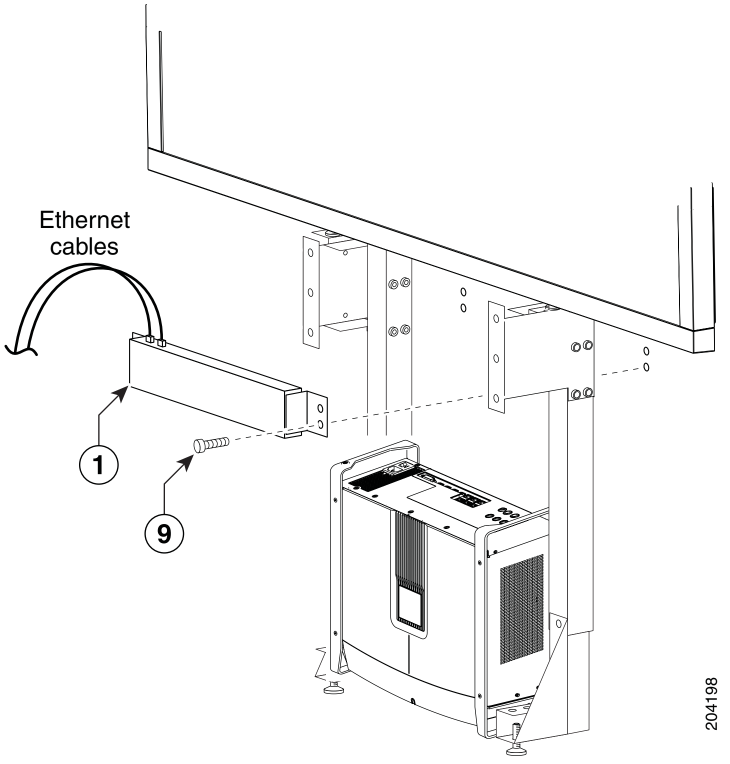
Step 5 Measure and drill the wall mounting holes for the auxiliary control unit. Hold the unit against the wall and use it as a template for the mounting holes.

Figure 2-2 Measuring and Drilling Holes for Auxiliary Control Unit



Step 6 Mount the auxiliary control unit to the wall using the drywall screws and drywall anchors that are provided with the kit. There are two screws on each side.

Mount the unit directly below the horizontal metal support for the display stand and make sure that the Ethernet connections are pointing upwards and the power connections are pointing downwards. You must connect the Ethernet cables (if they are used) to the unit before you mount it.



Step 7 Route the cables for the auxiliary control unit by completing the following steps:

a. Plug the power cord for the auxiliary control unit into a power outlet.

b. Plug the power cord for the light fixture into any of the switched outlets of the auxiliary control unit.

Note Do not plug the light fixture into the outlet marked “UNSWITCHED.”

Step 8 Mount the front panel onto the frame by completing the following steps:

a. Place the front panel onto the frame.

b. Using a #3 Phillips screwdriver, attach the six screws next to the speaker.

c. Mount the black speaker grille onto the front panel.

Step 9 Power on the system by plugging the power cord into an active wall socket.

Adding an Auxiliary Control Unit with a Cisco TelePresence Presentation Codec

To add an auxiliary control unit to a CTS-1000 with a presentation codec, complete the steps in the “Adding a Standalone Auxiliary Control Unit” section on page 2-2 and add the following additional connections:

- Connect the Primary Codec Document Camera Ethernet connection (orange Ethernet connection on the primary codec) to one Ethernet port of the auxiliary control unit.
- Connect the other Ethernet port of the auxiliary control unit to the Presentation Codec Ethernet port (white/red Ethernet connection on the presentation codec).

Configuring an Auxiliary Control Unit

To configure the presentation codec, refer to *Cisco TelePresence System Administrator’s Guide* for your software release.

Cisco TelePresence Presentation Codec

The Presentation Codec provides 30 frames per second capabilities to support full-motion video presentations between Cisco TelePresence endpoints.

Parts List for Presentation Codec

Key	Part Description	Part Number	Qty	Notes
Presentation Codec, 800-28202-xx				
1	Secondary (Presentation) codec	800-28202-xx	1	
2	Handle/Mounting bracket	700-23917-01	2	
3	Rear cover	700-27340-01	1	

Key	Part Description	Part Number	Qty	Notes
4	Mounting base	800-31148-01	1	
5	Left end cap	700-27642-01	1	
6	Top Cover	700-27343-01	1	
7	Right end cap	700-27344-01	1	
8	M4 x 6mm flat head screws	48-0448-01	4	
9	M5 x 12mm hex head screws	48-1936-01	4	
10	M4 x 10mm pan head screws	48-1948-01	4	

Adding a Standalone Presentation Codec

To add the Cisco TelePresence Presentation Codec to the CTS-1000, complete the following procedure:

Procedure

Step 10 Power off the system by performing the following steps:

a. Get the IP address for the system codec as follows:

  1. On the IP phone, locate Manual at the bottom of the screen and press the Manual soft key.

  Note If you cannot locate the Manual soft key, continue to Step 2.

  2. Locate Info at the bottom of the screen and press the Info soft key.

  3. Scroll down to the IP Address listing and copy the address.

b. Open a browser on a computer that is connected to the network.

c. In the URL field, type the IP address for the system codec and press **Enter**. The browser launches the Cisco TelePresence System Administrator.

d. In the Admin field, type **admin**.

e. In the Password field, type **cisco**.

Note If your administrator has changed the user name or password, enter those values.

f. Click **Login**.

g. Locate the Phone pane in the upper left-hand corner of the administrator page and select **Troubleshooting > System Reset**. the Restart Cisco TelePresence System button appears at the top of the window.

h. Click the **Restart Cisco TelePresence System** button to start the reset.

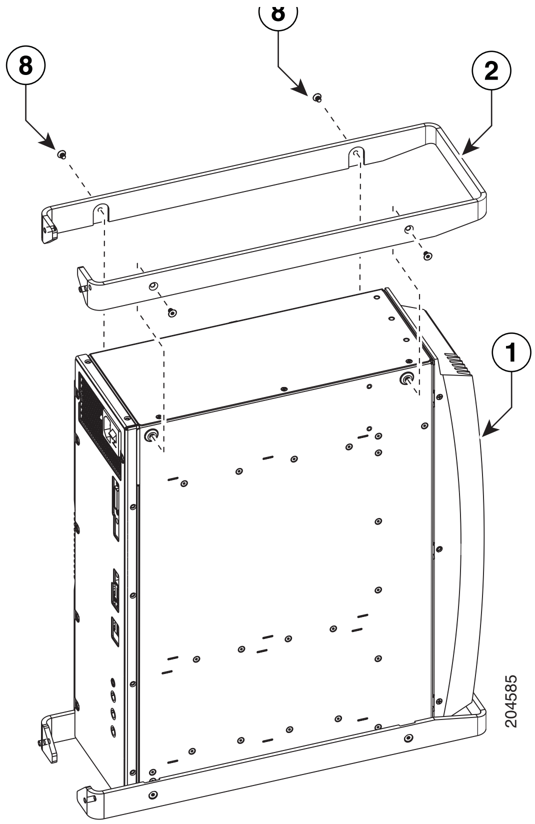
The monitor goes dark and, the encircled numbers one through six appear at the bottom of the display screen on the left-hand side.

i. After the first number changes to a check mark, unplug the system power cord from the wall socket.

Step 11 Remove the presentation codec from its packaging.

Step 12 Remove the right handle/mounting bracket from the presentation codec.

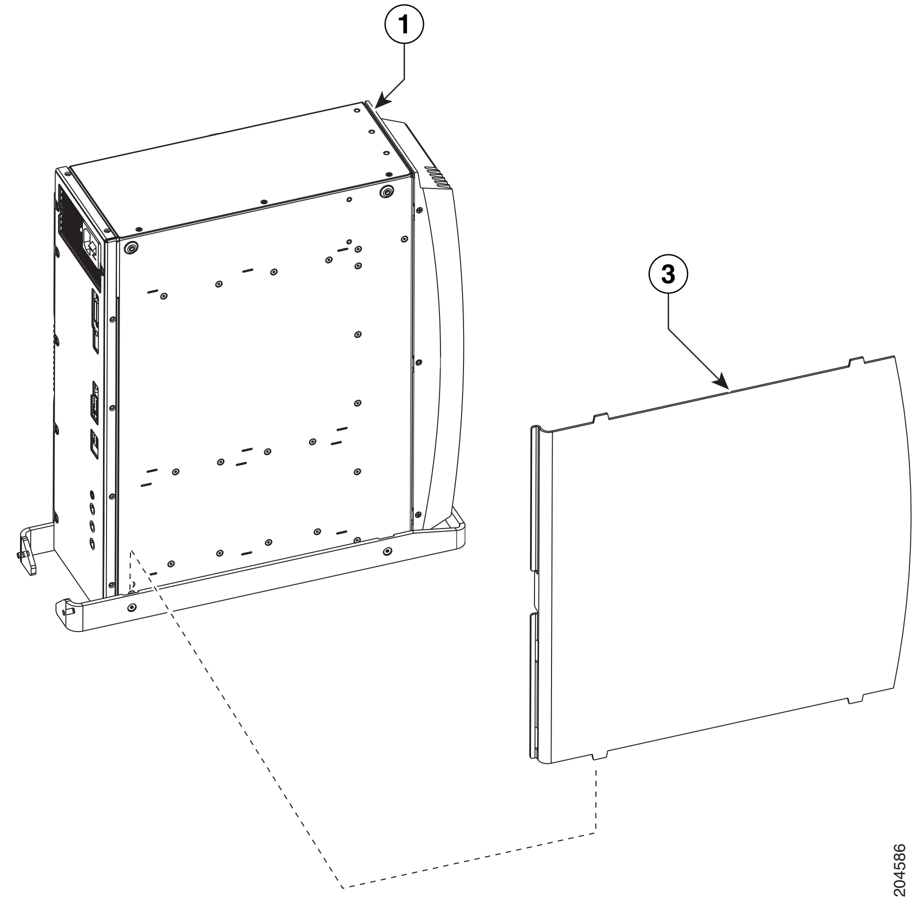
Figure 2-3 Removing the Right Handle/Mounting Bracket



Note Place the codec and base so that the cables can reach the CTS-1000 codec.

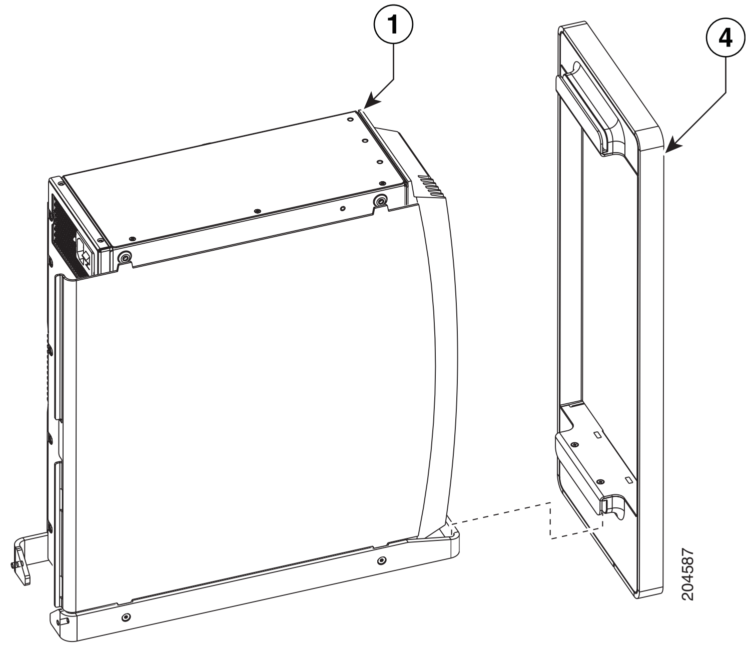
Step 13 Insert the tab of the rear cover in the slot between the left handle/mounting bracket and the codec.

Figure 2-4 Rear Cover and Left Handle/Mounting Bracket



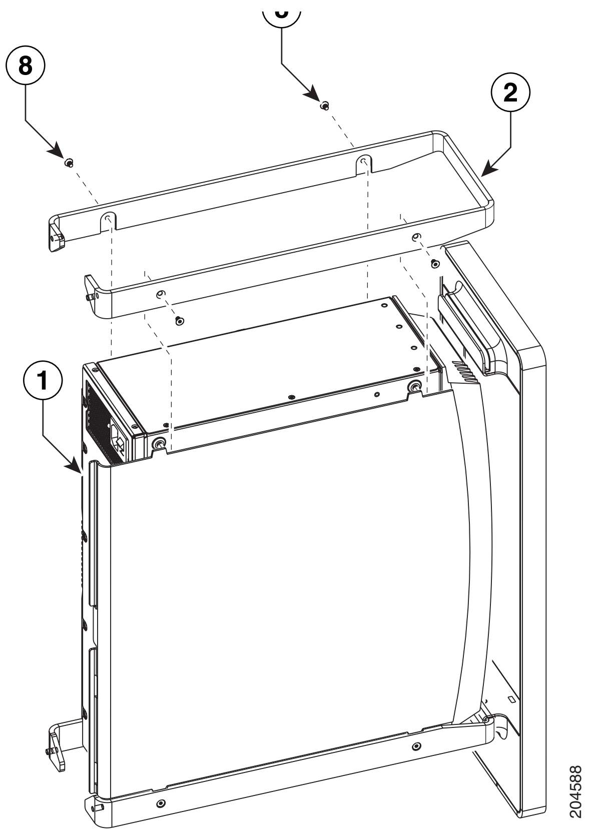
Step 14 Insert the lower part of the left handle/mounting bracket into the mounting base.

Figure 2-5 Left Handle/Mounting Bracket and Mounting Base



Step 15 Reattach the right handle/mounting bracket to the codec assembly.

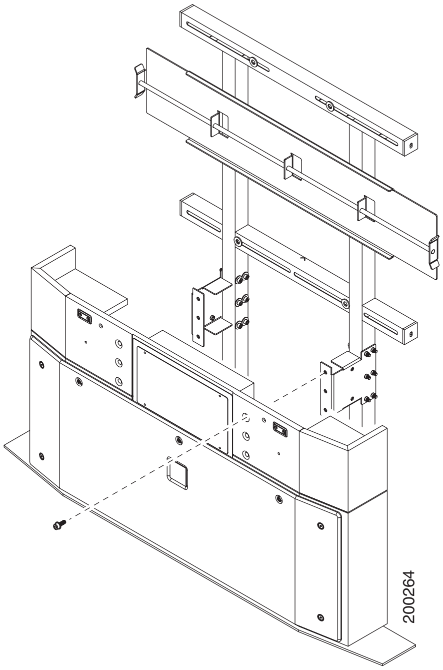
Figure 2-6 *Right Handle/Mounting Bracket and Codec Assembly*



Step 16 Access the codec by removing the front panel from the frame. Complete the following steps:

- **a.** Remove the black speaker grille from the top of the front panel by grasping the sides until the pins pop out of the holes.
- **b.** Using a #3 Phillips screwdriver, remove the six screws next to the speaker (three on either side).
- **c.** Pull the front panel away from the frame.
- **d.** Disconnect the lighting unit from the PDU.

Figure 2-7 Removing the Front Panel From the Frame



Step 17 Attach the auxiliary control unit to its bracket using the supplied 5 mm screws.

Note Attach the bracket so that the shortest part of the bracket attaches to the wall; otherwise the unit is too wide to fit between the display supports.

Step 18 Attach and route the cables between the CTS-1000 and presentation codec.

Figure 2-8 shows you the cabling diagram for a CTS-1000 with a presentation codec.

Figure 2-8 Power and Signal Cabling for Presentation Codec

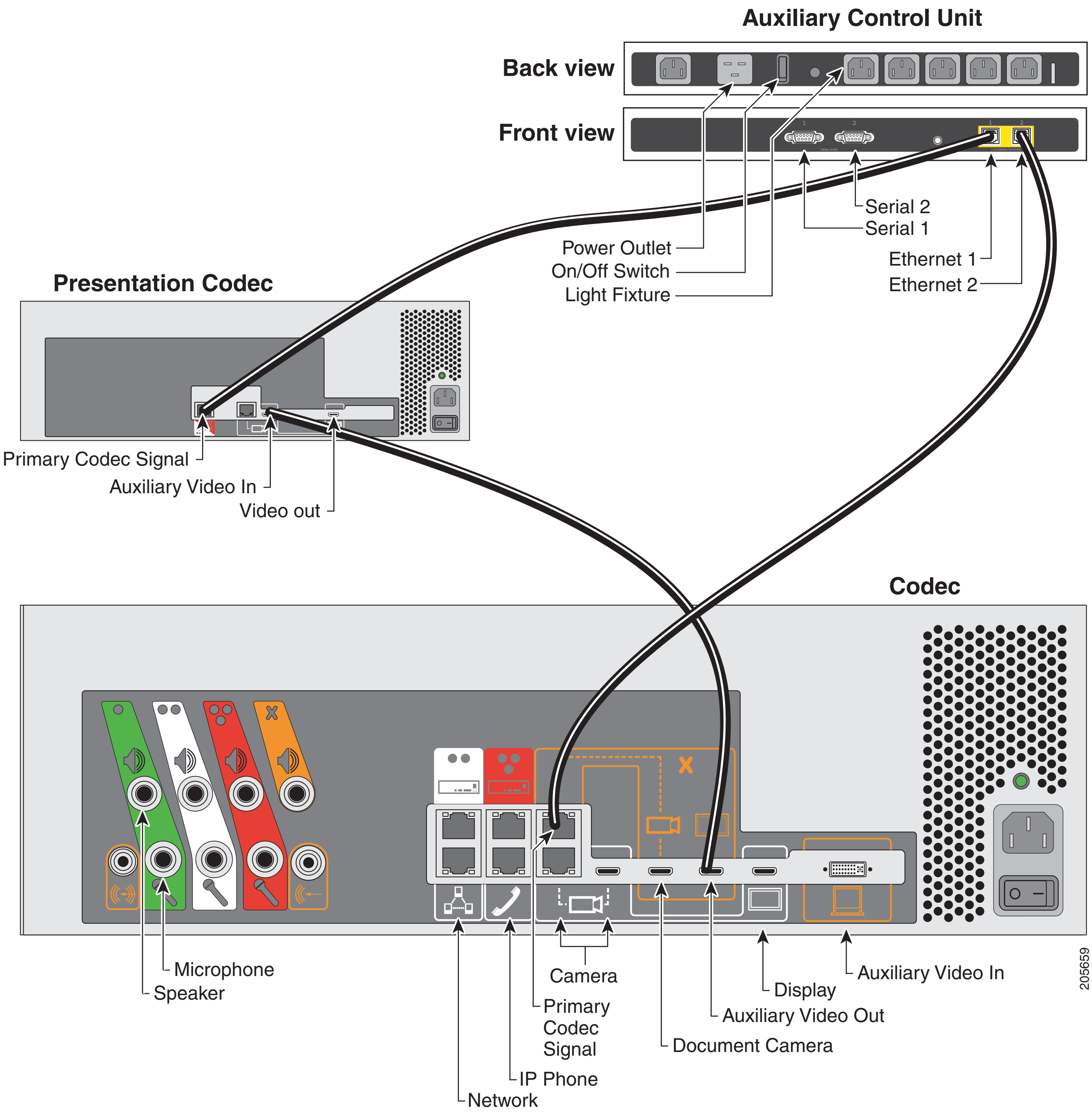

Auxiliary Control Unit
Back view
Front view
Serial 2
Serial 1
Power Outlet
On/Off Switch
Light Fixture
Ethernet 1
Ethernet 2
Presentation Codec
Primary Codec Signal
Auxiliary Video In
Video out
Codec
Microphone
Speaker
Camera
Primary Codec Signal
IP Phone
Network
Document Camera
Auxiliary Video Out
Display
Auxiliary Video In
205659

Figure 2-9 shows you the cabling diagram for a CTS-1000 with an external display. You use the display for shared presentations.

Figure 2-9 Cabling Diagram—CTS-1000 with External Presentation Display

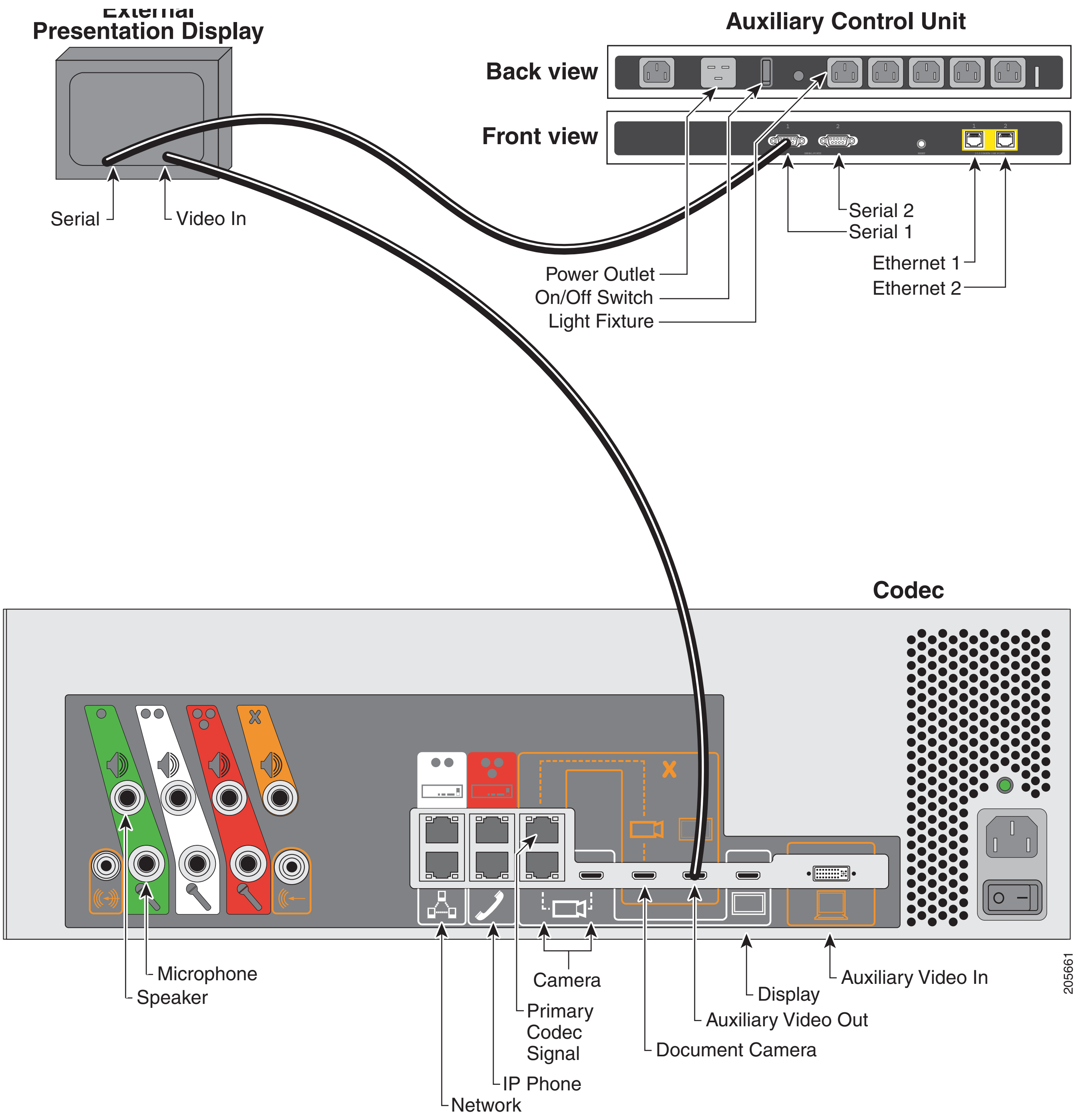
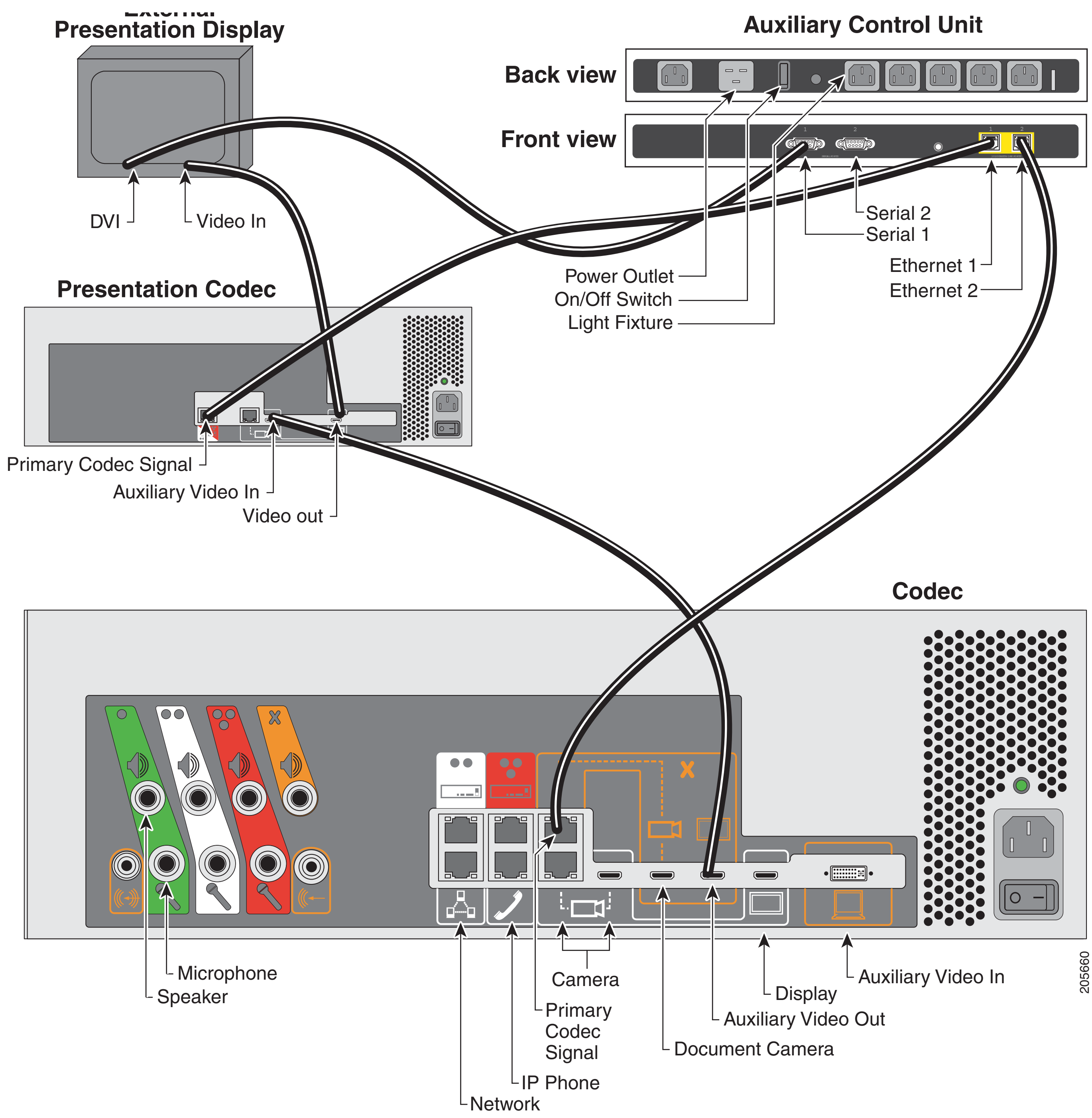

External
Presentation Display
Serial
Video In
Auxiliary Control Unit
Back view
Front view
Serial 2
Serial 1
Ethernet 1
Ethernet 2
Power Outlet
On/Off Switch
Light Fixture
Codec
Microphone
Speaker
Camera
Primary
Codec
Signal
IP Phone
Network
Document Camera
Auxiliary Video Out
Display
Auxiliary Video In
205661

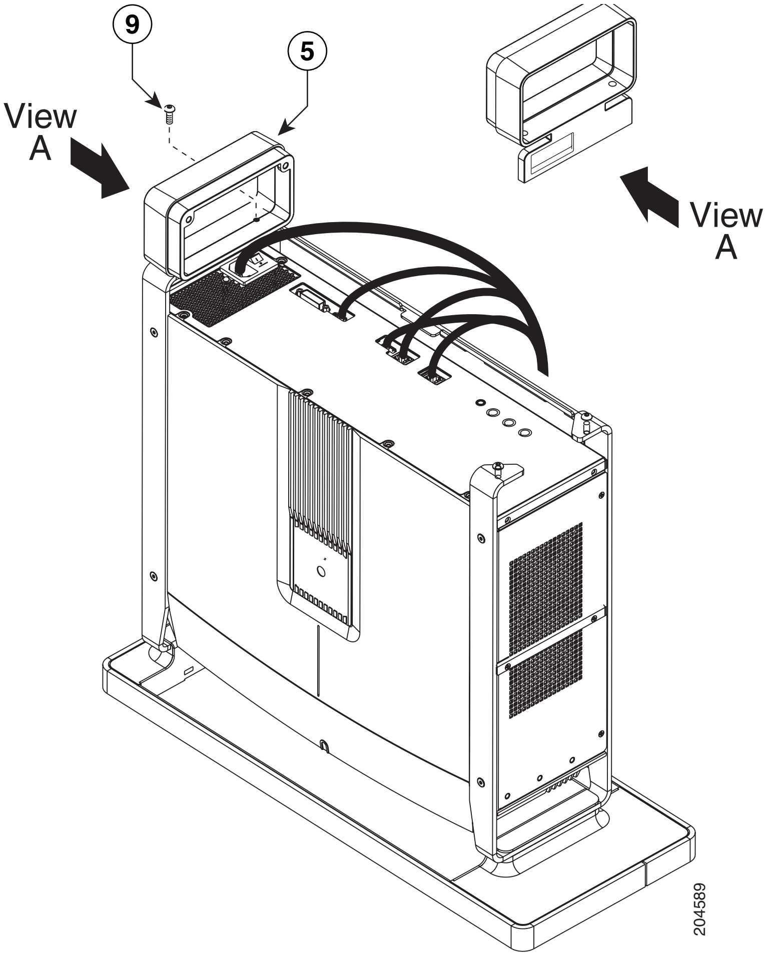
Figure 2-10 shows you the cabling diagram for a CTS-1000 with a presentation codec and an external display. You use the display for shared presentations. Connect the presentation source to the codec using the DVI-to-VGA cable; plug the DVI connection into the Auxiliary Video In connection.

Figure 2-10 Cabling Diagram—CTS-1000 with Presentation Codec and External Presentation Display


External
Presentation Display
DVI
Video In
Auxiliary Control Unit
Back view
Front view
Serial 2
Serial 1
Ethernet 1
Ethernet 2
Power Outlet
On/Off Switch
Light Fixture
Presentation Codec
Primary Codec Signal
Auxiliary Video In
Video out
Codec
Microphone
Speaker
Camera
Primary Codec Signal
IP Phone
Network
Document Camera
Auxiliary Video Out
Display
Auxiliary Video In
205660

Step 19 Place the left end cap on the presentation codec assembly.

Figure 2-11 Left End Cap



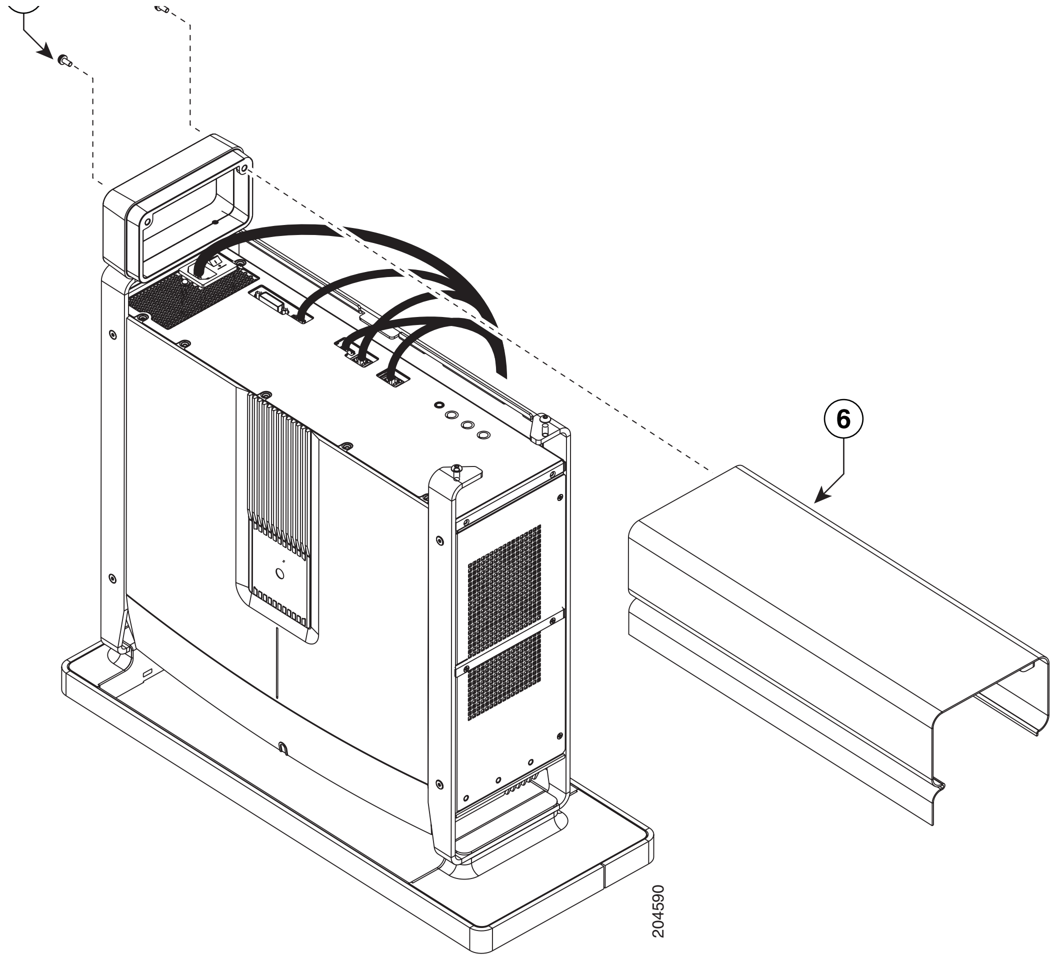
Step 20 Attach the top cover to the presentation codec assembly and route the cables through the hole in the rear center of the cover.

Note The hole for the cables is not visible in Figure 2-12; it faces the rear of the codec.

Tip If your installation does not have enough space behind the codec to route the cables through the hole in the top cover, route the cables through either the left or right end cap.

Note Tighten the screws until they are snug but do not overtighten.

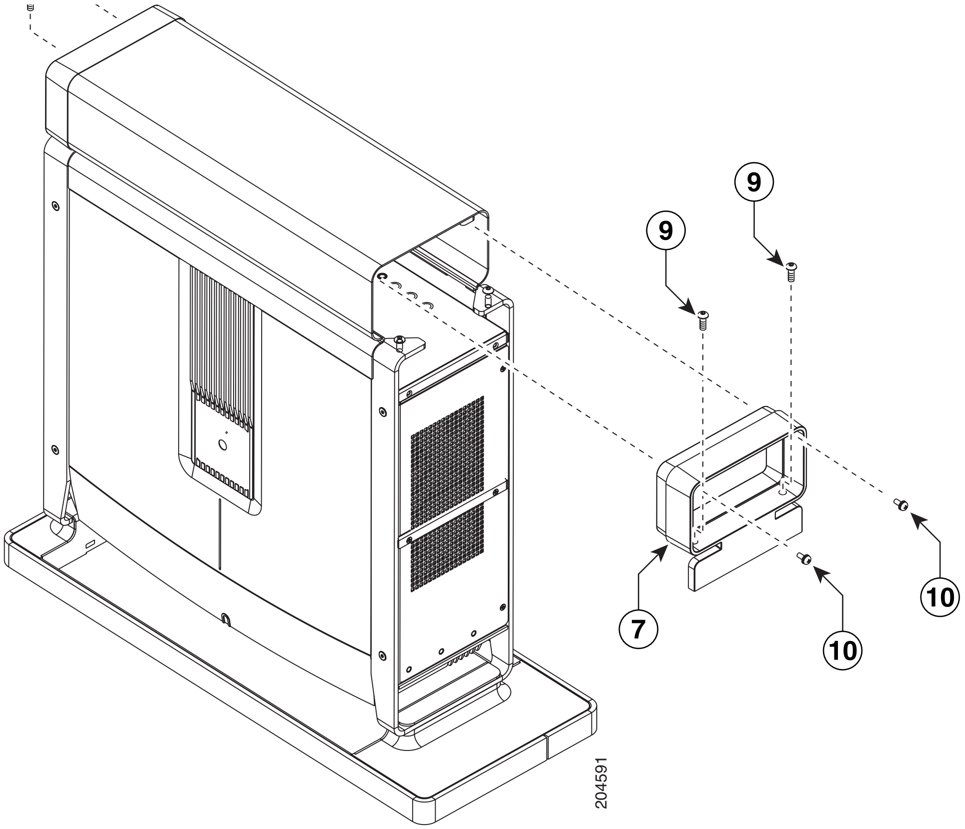
Figure 2-12 Top Cover



Step 21 Attach the end caps to the presentation codec assembly.

Note Tighten the screws until they are snug but do not overtighten.

Figure 2-13 Right End Cap



Step 22 Power on the CTS-1000 system.

Note You might have to reboot your presentation codec several times before it becomes active. For information about rebooting the CTS-1000, refer to the "Field-Replacement and Upgrade Disassembly Instructions" chapter of the *Cisco TelePresence 1000 Assembly, Use & Care, and Field-Replacement Unit Guide*.

Adding a Cisco TelePresence Presentation Codec with a Auxiliary Control Unit

To add a presentation codec to an CTS-1000 with an auxiliary control unit, complete the steps in the "Adding a Standalone Presentation Codec" section on page 2-6 and perform the following additional cabling steps:

- Connect the Primary Codec Document Camera Ethernet connection (orange Ethernet connection on the primary codec) to one Ethernet port of the auxiliary control unit.

- Connect the other Ethernet port of the auxiliary control unit to the Presentation Codec Ethernet port (white/red Ethernet connection on the presentation codec).

Note The Ethernet ports in the auxiliary control unit are interchangeable. Use either of the ports for the connections from the primary codec and the presentation codec.

Configuring a Cisco TelePresence Presentation Codec

To configure the presentation codec, refer to *Cisco TelePresence System Administrator's Guide* for your software release.

CHAPTER 3

Options for the Cisco TelePresence System 3000

Revised: July 28, 2008, OL-16441-01

Auxiliary Control Unit

The auxiliary control unit provides the ability to conserve energy by powering the Cisco TelePresence System 3000 (CTS-3000) lights, projector, and optional peripherals on and off. There is one power inlet, five controlled power outlets, and one power outlet that is not controlled (unswitched). In addition, there are two serial ports, one of which allows you to control the power for the projector, and incoming and outgoing Ethernet connections that allow you to control an additional peripheral item. The auxiliary control unit is controlled by your CTS-3000 administrator and can be configured to:

- Turn the CTS-3000 lights on during a Cisco TelePresence call and turn the lights off after the call is completed.

Note You can also configure the lights to stay on for a period of time after a call completes.

- Turn the CTS-3000 lights on according to a configured time schedule.
- Leave the CTS-3000 lights on continuously.

Parts List for Auxiliary Control Unit

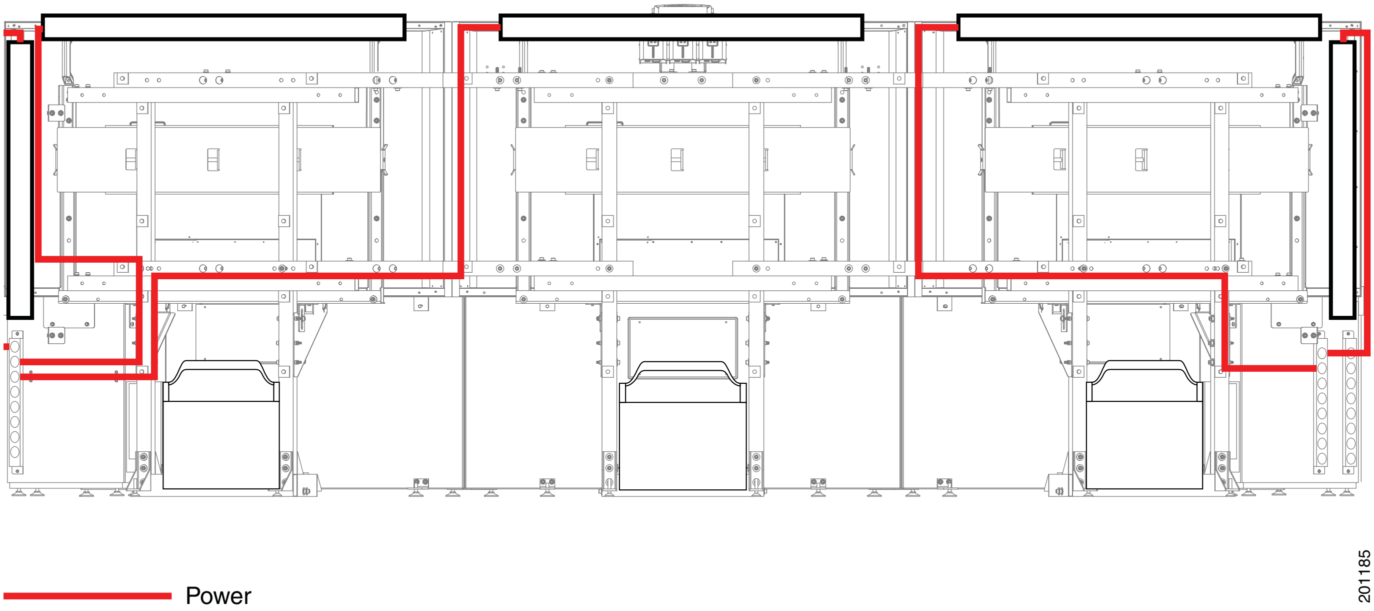
Key	Part Description	Part Number	Qty	Notes
Audio/Video Expansion Unit, CTS-LIGHT-CTRL, 74-5405-01				
1	Auxiliary Control Unit	74-5405-01	1	
2	Bracket for auxiliary control unit	700-27073-01	2	
3	Cat6 Ethernet Cable, 3M	37-0887-02	2	
4	Cat6 Ethernet Cable, 1M	37-0901-01	2	
5	Serial Cable, 6M	37-0980-01	1	
6	Cable Tie	51-4641-01	25	
7	Cable Holder, 1 inch x 1 inch	51-4712-01	25	
35	M5 x 10mm pan head screws	48-0426-01	5	

Adding a Standalone Auxiliary Control Unit

The following illustrations and steps describe how to attach the auxiliary control unit to your CTS-3000.

Step 1 Turn off the power to the side PDUs and unplug the power cables for the lighting assembly.

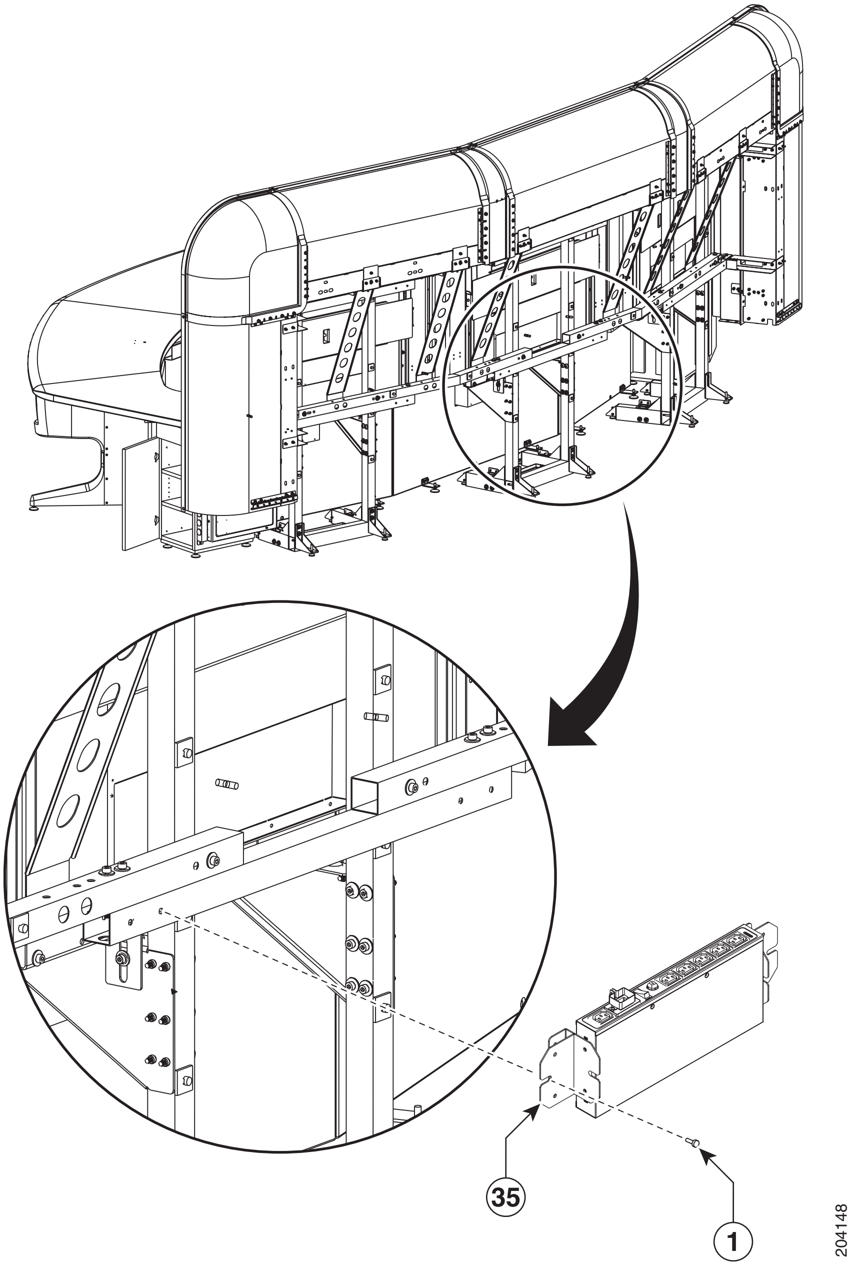
Figure 3-1 PDU Location and Lighting Assembly Cable Routing



Note Your installation might differ from this diagram. If your installation has the lighting connected to a central PDU located on the rear of the center display structure, turn off that PDU.

Step 2 Attach the auxiliary control unit to the rear of the display assembly.

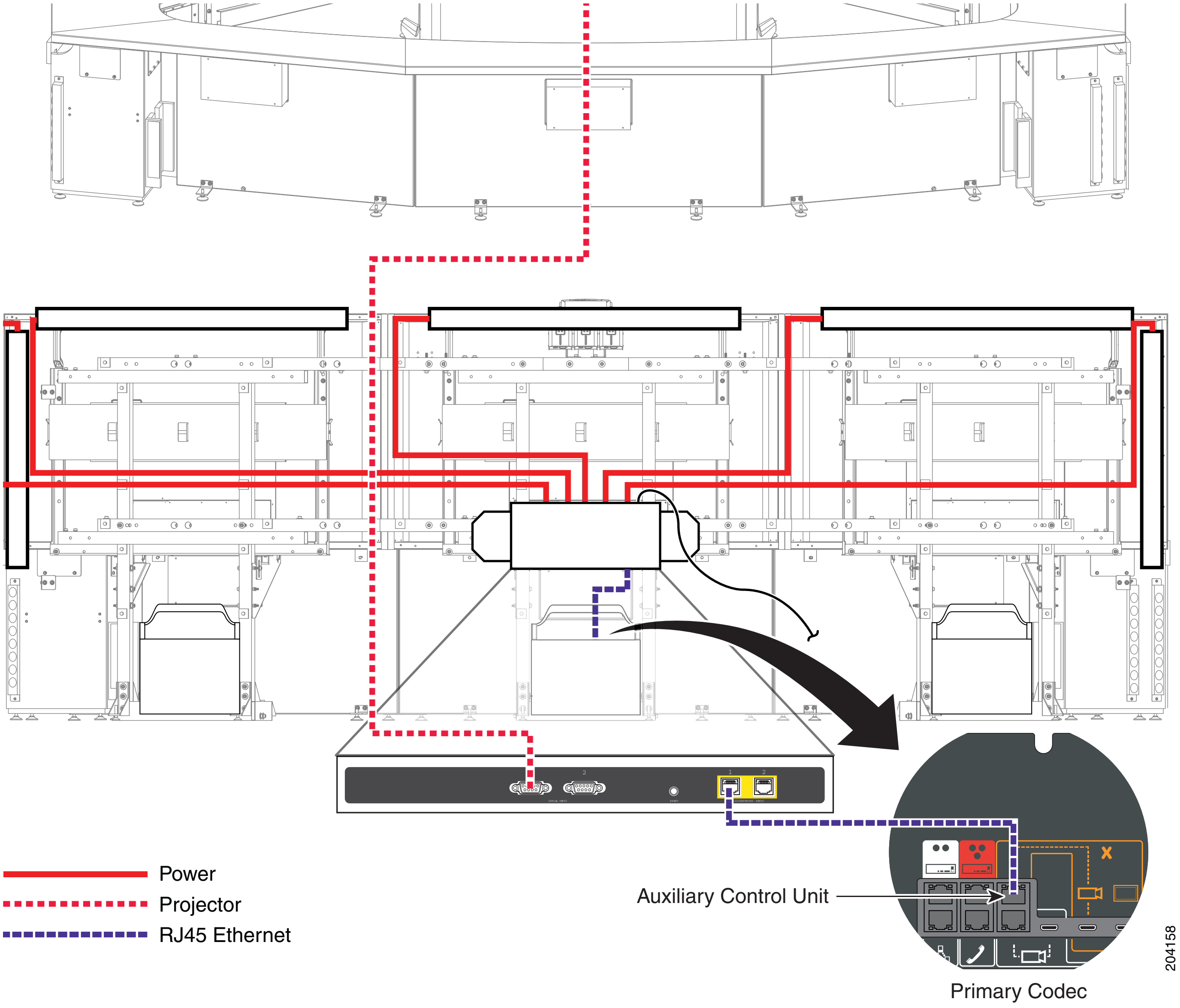
Figure 3-2 Auxiliary Control Unit



Note If your installation has a PDU in the center of the display assembly (roughly in the same location as the auxiliary control unit), remove the PDU during this step.

Step 3 Plug the jumper cords for the lights and the projector serial cable into the auxiliary control unit.

Figure 3-3 Cable Routing for Auxiliary Control Unit



Note If you encounter clearance problems when you connect the serial cable to the projector, remove the projector from the table by completing the steps in the “Replacing the Projector” section in the “Field-Replaceable Unit Guide” chapter of the *Cisco TelePresence System 3000 Assembly, Use & Care, and Field Replacement Unit Guide*.

Configuring a Standalone Auxiliary Control Unit

To configure your audio extension unit with your CTS-3000, refer to *Cisco TelePresence System Administrator’s Guide* for your software release.

Adding a Auxiliary Control Unit with a Cisco TelePresence Presentation Codec

To add an auxiliary control unit to a CTS-3000 with a presentation codec, complete the steps in the "Adding a Standalone Auxiliary Control Unit" section on page 3-2 and complete the following additional cabling steps:

- Connect the Primary Codec Document Camera Ethernet connection (orange Ethernet connection on the primary codec) to one Ethernet port of the auxiliary control unit.
- Connect the other Ethernet port of the auxiliary control unit to the Presentation Codec Ethernet port (white/red Ethernet connection on the presentation codec).

Note The Ethernet ports in the auxiliary control unit are interchangeable. Use either of the ports for the connections from the primary codec and the presentation codec.

Cisco TelePresence Presentation Codec

The Presentation Codec provides 30 frames per second capabilities to support full-motion video presentations between Cisco TelePresence endpoints.

Adding a Standalone Cisco TelePresence Presentation Codec to a Primary Codec

To add the Cisco TelePresence Presentation Codec to your CTS-3000, perform the following procedure:

Step 1 Get the IP address for the primary codec by completing the following steps:

a. On the IP phone, locate Manual at the bottom of the screen and press the **Manual** soft key.

Note If you cannot locate the Manual button, proceed to Step b.

b. Locate Info at the bottom of the screen and press the **Info** soft key.

c. Scroll down to the IP Address listing and copy the address.

Step 2 Open a browser on a computer that is connected to the network.

Step 3 In the URL field, type the IP address for the primary codec and press **Enter**. The browser launches the Cisco TelePresence System Administrator.

Step 4 Log in to the system by entering the following information:

a. In the Admin field, type **admin**.

b. In the Password field, type **cisco**.

Note If your administrator has changed the user name or password, enter those values.

Step 5 Click **Login**.

Step 6 Locate the Phone pane in the upper left-hand corner of the administrator page and select **Troubleshooting > System Reset**. the Restart Cisco TelePresence System button appears at the top of the window.

Step 7 Click the **Restart Cisco TelePresence System** button to start the reset.

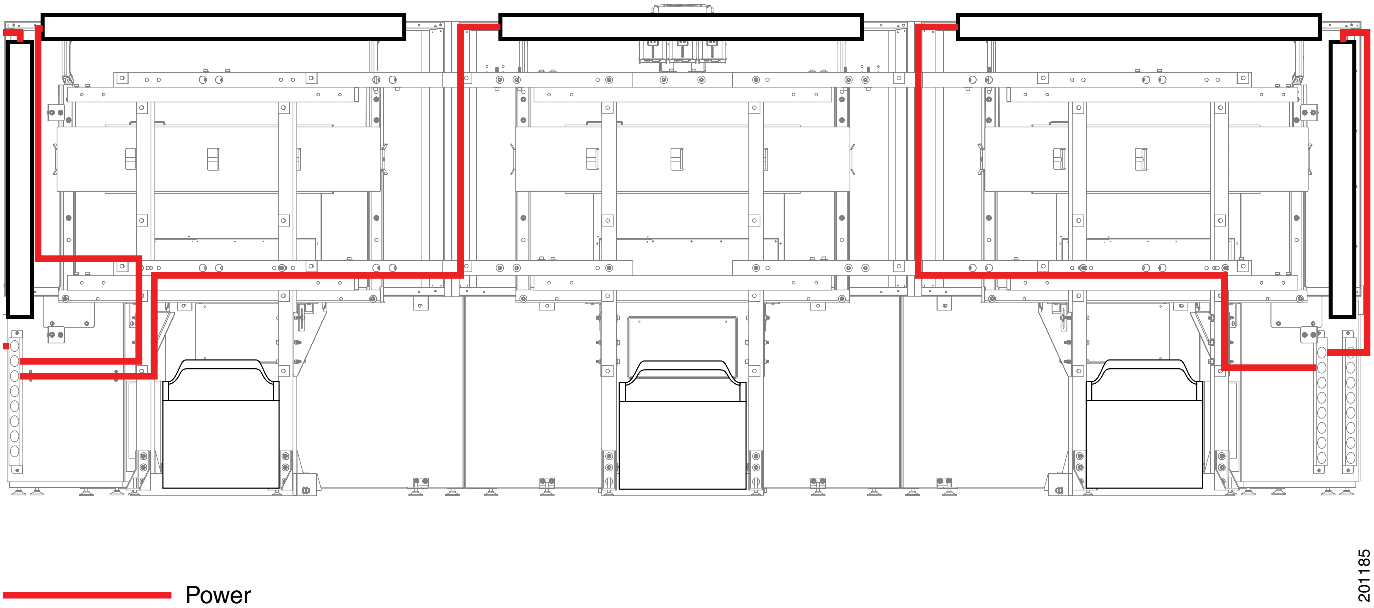
Six boxes appear on the display screens.

Step 8 After the first box changes to a check mark, turn the power switches for the two left PDUs and single right PDU to the Off position.

Note If there is an additional PDU that is mounted on the rear of the center display structure, power off that PDU also.

Caution Make sure all system power is turned off before beginning this disassembly.

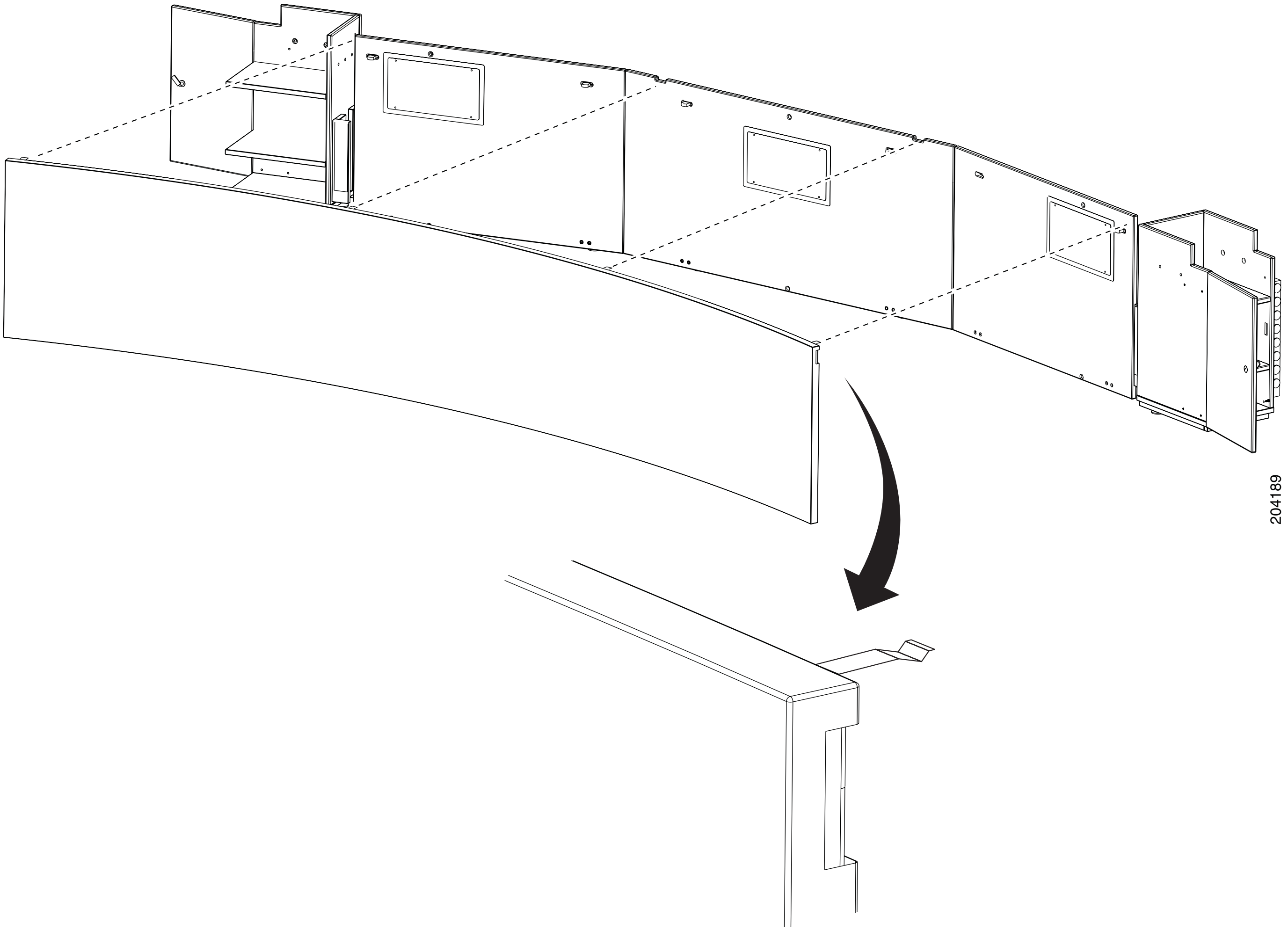
Figure 3-4 PDU Location



Step 9 Remove the projector screen.

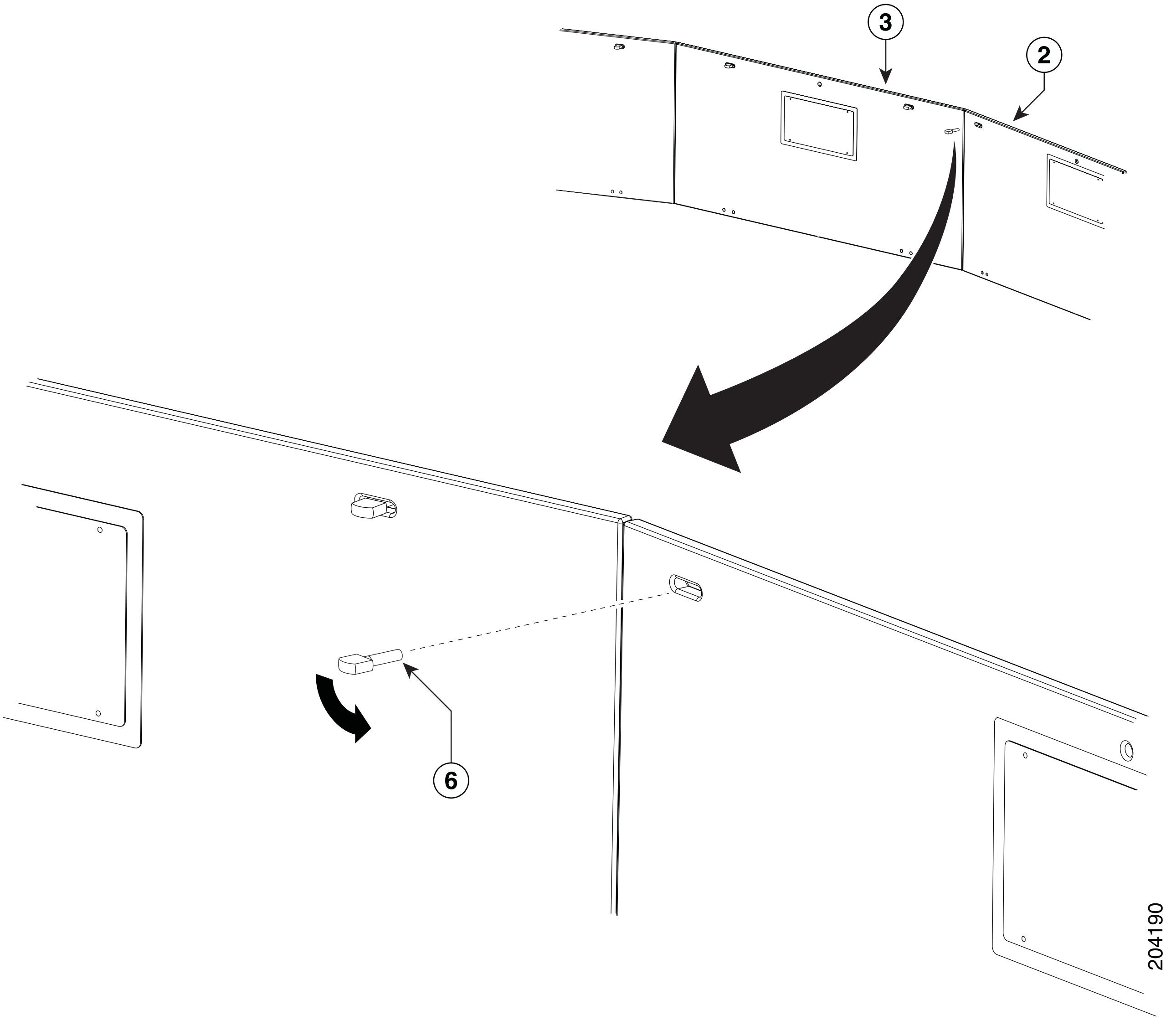
The projector screen is attached to the Cisco TelePresence assembly by clips that are on the top edge and side of the screen. To remove the screen, gently pull outward on the screen where the clips are located.

Figure 3-5 Projector screen Assembly



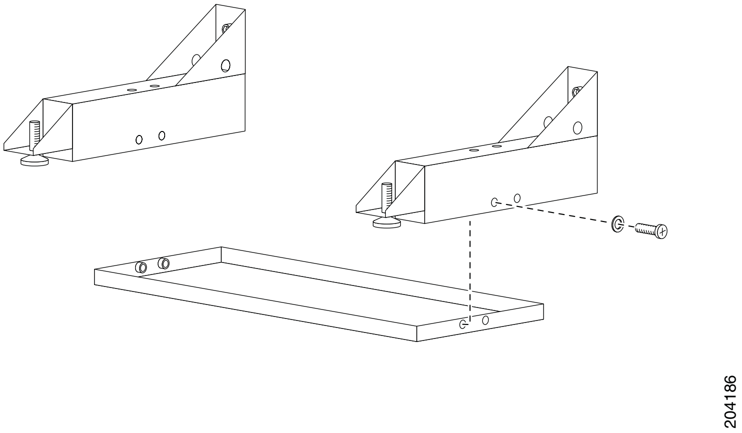
Step 10 Remove the three speaker assemblies. If required, disconnect the speaker cables.

Figure 3-6 Removing the Speaker Assemblies



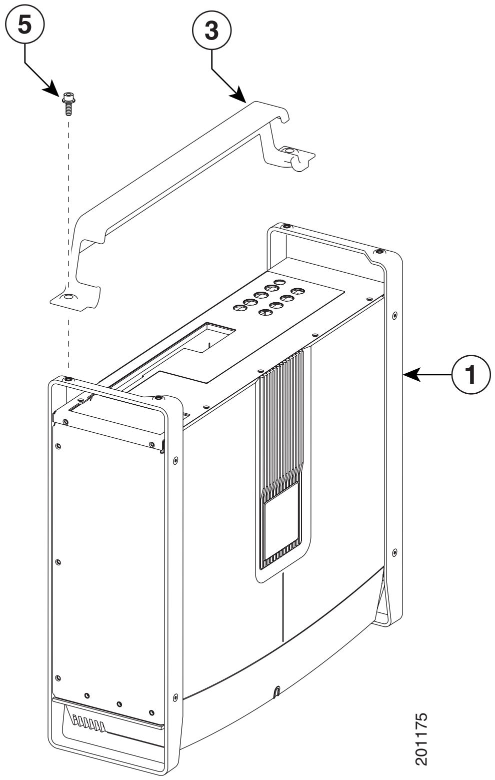
Step 11 Unscrew the four screws that attach the codec safety tray to the frame feet and remove the codec tray.

Figure 3-7 *Removing Codec Safety Tray*



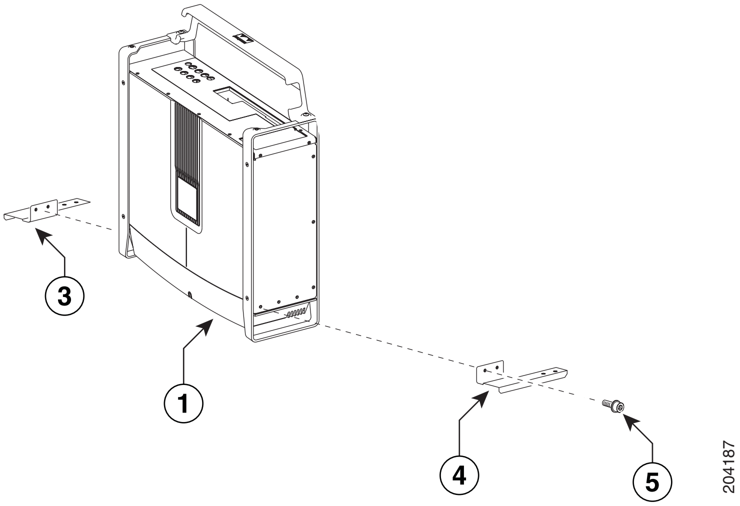
Step 12 Attach the cable management bar to the presentation codec.

Figure 3-8 Cable Management Bar



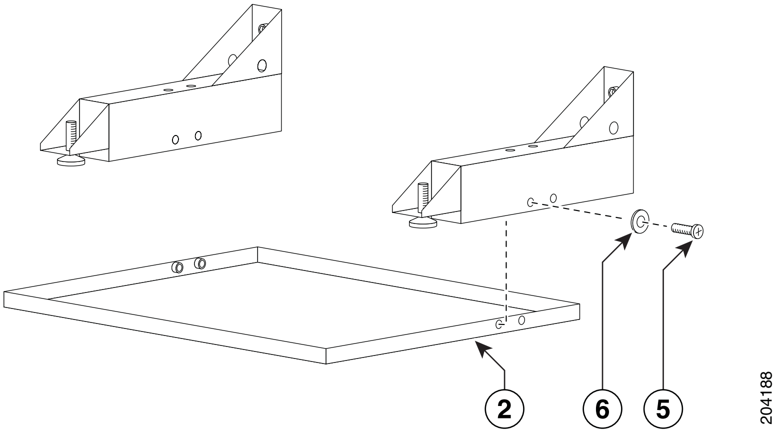
Step 13 Attach the attachment brackets to the presentation codec.

Figure 3-9 Presentation Codec and Attachment Brackets



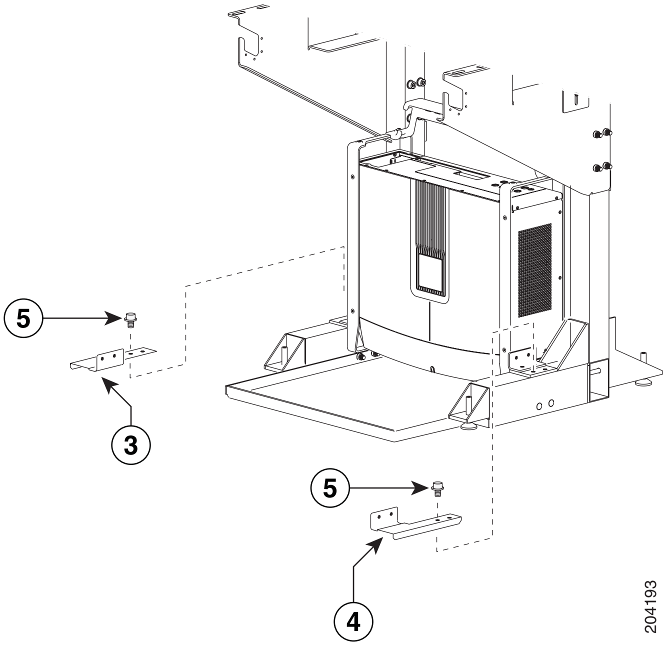
Step 14 Place the double-wide codec tray in between the frame feet and secure it with the screws.

Figure 3-10 Double-Wide Codec Tray



Step 15 Place the presentation codec in the front of the new codec tray and attach it to the front feet of the display stand.

Figure 3-11 Presentation Codec and Display Stand Front Feet

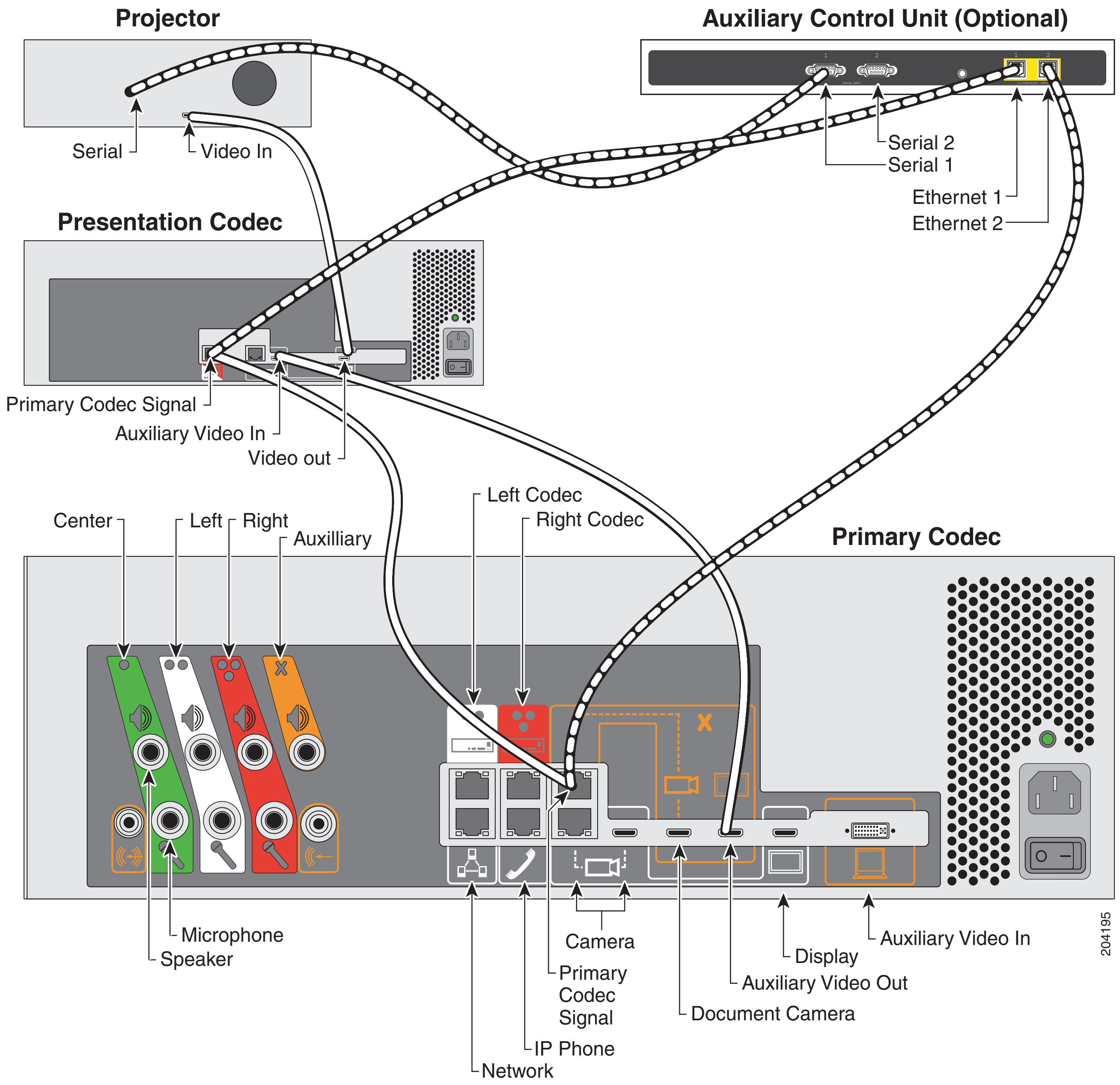


Step 16 Route the signal cables for the presentation codec using one of the following diagrams:

- For a standard CTS-3000 installation, use the following wiring diagram for the presentation codec.

Note If you have an Auxiliary Control Unit, substitute the signal cabling between the presentation codec and the primary codec with the alternate cabling for the Auxiliary Control Unit.

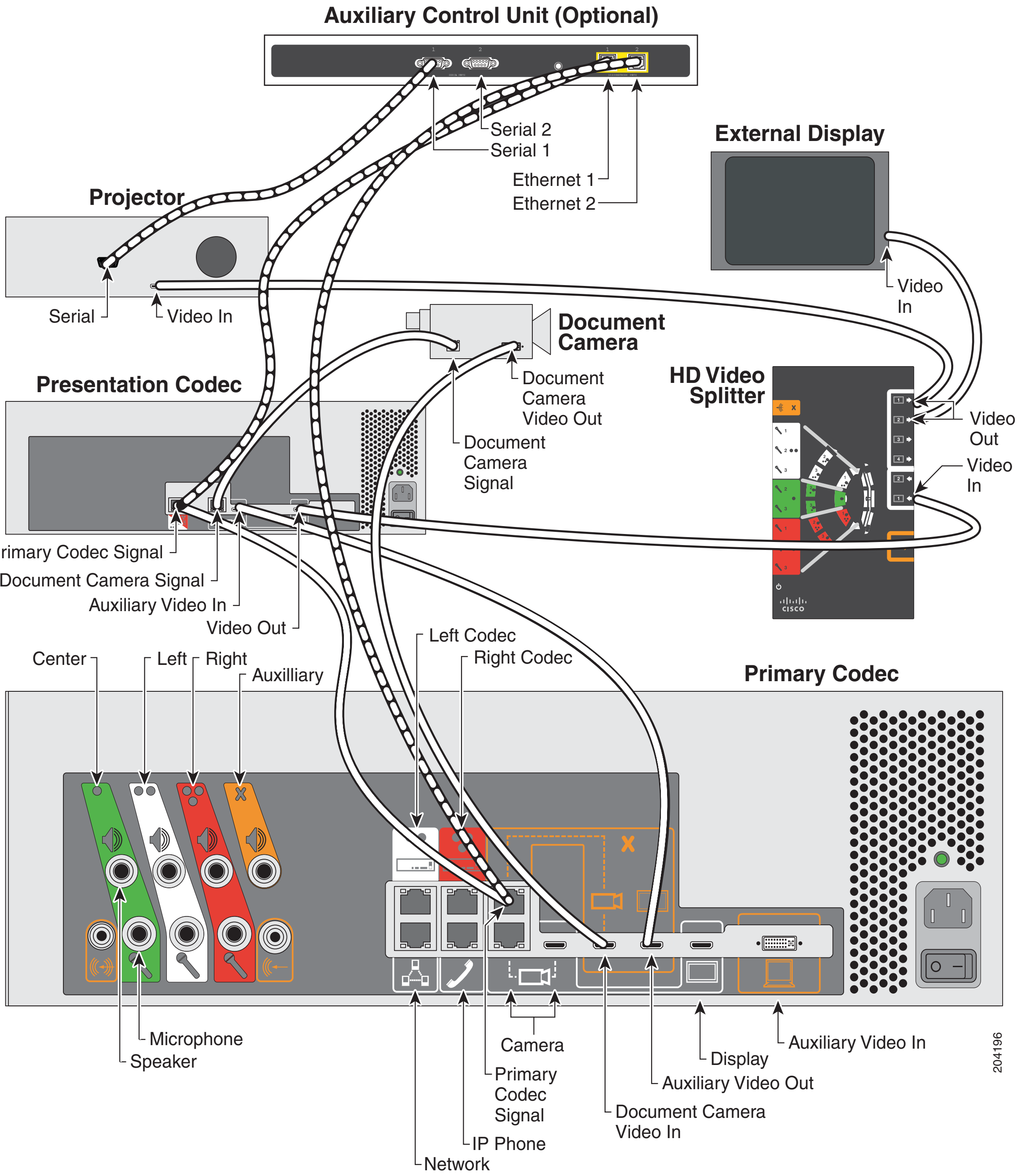
Figure 3-12 Cable Routing for Presentation Codec and Auxiliary Control Unit


Projector
Auxiliary Control Unit (Optional)
Serial
Video In
Serial 2
Serial 1
Ethernet 1
Ethernet 2
Presentation Codec
Primary Codec Signal
Auxiliary Video In
Video out
Center
Left
Right
Auxilliary
Left Codec
Right Codec
Primary Codec
Microphone
Speaker
Camera
Primary Codec Signal
IP Phone
Network
Document Camera
Auxiliary Video Out
Display
Auxiliary Video In
204195

- For a CTS-3000 installation that uses an optional document camera, external display, or HDMI splitter for multiple video displays, use the following wiring diagram for the presentation codec. If you have an Auxiliary Control Unit, substitute the signal cabling between the presentation codec and the primary codec with the alternate cabling for the Auxiliary Control Unit.

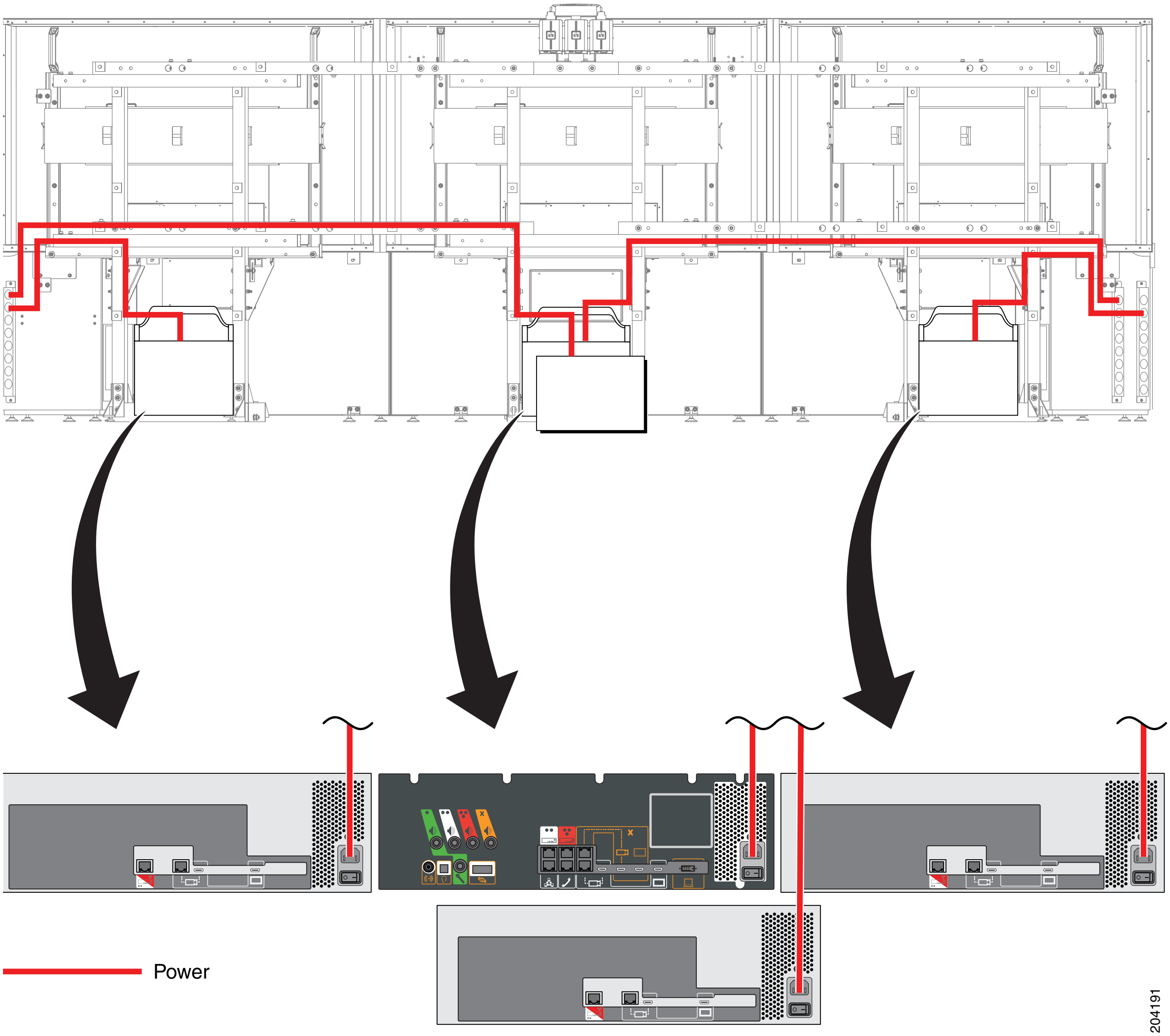
Note For a list of the external displays that Cisco TelePresence supports, refer to the *Release Notes for Cisco TelePresence System, Release 1.4*.

Figure 3-13 Cable Routing for Presentation Codec, Auxiliary Control Unit, Document Camera and External Display


Auxiliary Control Unit (Optional)
Serial 2
Serial 1
Ethernet 1
Ethernet 2
External Display
Projector
Serial
Video In
Video In
Document Camera
Document Camera Video Out
Document Camera Signal
HD Video Splitter
Video Out
Video In
Presentation Codec
Primary Codec Signal
Document Camera Signal
Auxiliary Video In
Video Out
Left Codec
Right Codec
Center
Left
Right
Auxilliary
Primary Codec
Microphone
Speaker
Camera
Primary Codec Signal
IP Phone
Network
Document Camera Video In
Auxiliary Video Out
Display
Auxiliary Video In
204196

Step 17 Route the power cables for the presentation codec.

Figure 3-14 Presentation Codec Cable Routing



Step 18 Power on the CTS-3000 by turning the power switches to the On position for the two left PDUs, single right PDU, and the PDU on the central display if it is present.

Note Write down the IP address that displays on the bottom right corner of the display screens. This is the address of the primary codec unit.

Step 19 In the browser on the computer, type in the IP address of the primary codec unit.

Step 20 Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.

Step 21 Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.

Step 22 Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.

Step 23 Navigate to the **Device Information > Configuration > CUCM settings** window, then perform the following actions:

  a. In the Certificate Trust List (CTL) area, delete the Certificate Trust List (CTL) from your system by clicking **Delete CTL**.

  b. In the Use Configuration TFTP Server area, click **Automatic** to set TFTP conditions to their default value and remove any alternate TFTP servers.

Note If you encounter problems, you might have to reboot your presentation codec several times before it becomes active. To reboot the presentation codec, turn off and on the PDU where you plugged in the presentation codec.

Configuring a Cisco TelePresence Presentation Codec

To configure your audio extension unit with your CTS-3000, refer to *Cisco TelePresence System Administrator's Guide* for your software release.

Adding a Cisco TelePresence Presentation Codec with a Auxiliary Control Unit

If your system includes a auxiliary control unit to a CTS-3000, add a presentation codec by following the steps in the "Adding a Standalone Cisco TelePresence Presentation Codec to a Primary Codec" section on page 3-5 and perform the following additional cabling steps:

- Connect the Primary Codec Document Camera Ethernet connection (orange Ethernet connection on the primary codec) to one Ethernet port of the auxiliary control unit.
- Connect the other Ethernet port of the auxiliary control unit to the Presentation Codec Ethernet port (white/red Ethernet connection on the presentation codec).
- Connect a serial cable between the serial port of the projector and the Serial 1 port of the auxiliary control unit.

See Figure 3-13 for more information.

Optional Switch for Ethernet Connectivity

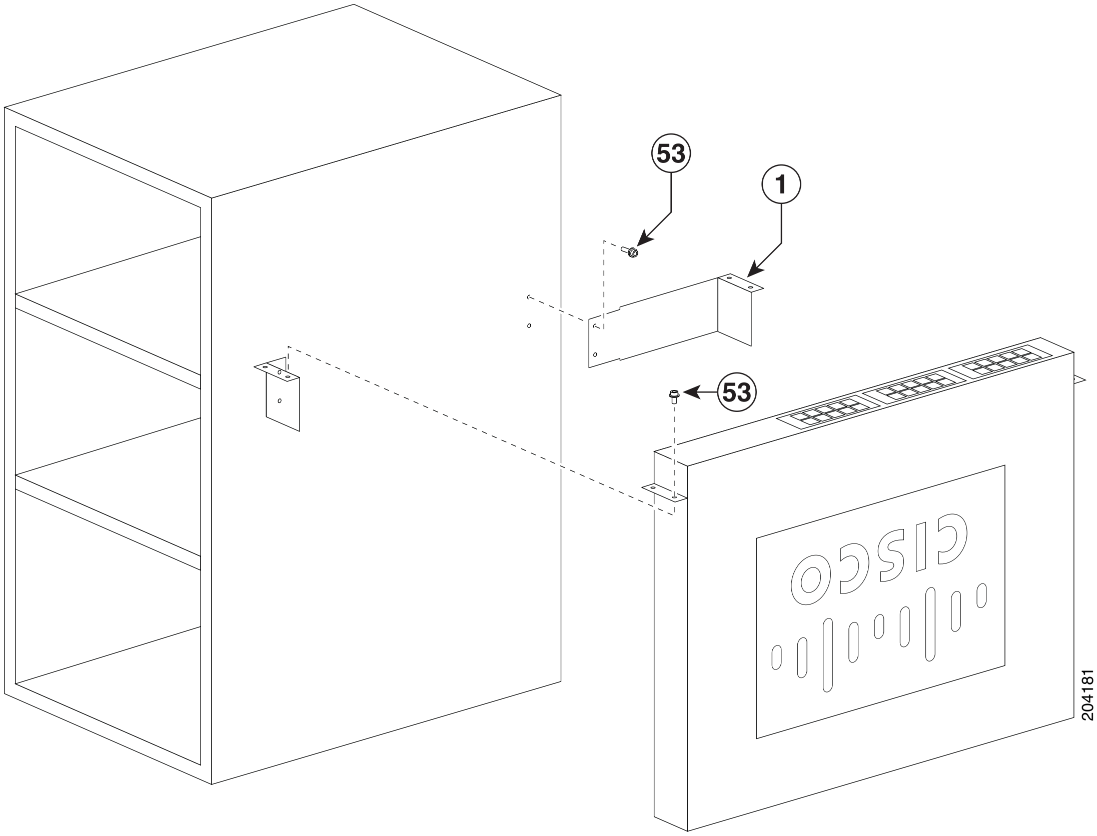
The optional 18 port switch allows all second participants to have Ethernet connectivity via the table leg Ethernet connections.

Adding the Optional Switch

To add the optional switch, perform the following procedure:

Step 1 Install the switch and switch bracket on the right accessory cabinet.

Figure 3-15 Switch and Switch Bracket



Step 2 Route the cables for the switch. You use six ports for the first row of tables, and 12 ports for the second row of tables.

CHAPTER 4

Options for the Cisco TelePresence System 3200

Revised: July 28, 2008, OL-16441-01

Parts List

Key	Part Description	Part Number	Qty	Notes
Presentation Codec, 800-28202-xx				
1	Secondary (Presentation) codec	800-28202-xx	1	
2	Double-wide tray for presentation codec	700-25301-01	1	
3	Left bracket for presentation codec	700-25306-01	1	
4	Right bracket for presentation codec	700-27374-01	1	
5	M4x12mm Pan head screws	48-2426-01	10	
5	M8 washers	49-1165-01	4	

Cisco TelePresence Presentation Codec

The Presentation Codec provides 30 frames per second capabilities to support full-motion video presentations between Cisco TelePresence endpoints.

Adding a Standalone Cisco TelePresence Presentation Codec to a Primary Codec

To add the Cisco TelePresence Presentation Codec to your CTS-3000, perform the following procedure:

Step 1 Get the IP address for the primary codec by completing the following steps:

a. On the IP phone, locate Manual at the bottom of the screen and press the **Manual** soft key.

Note If you cannot locate the Manual button, proceed to Step b.

b. Locate Info at the bottom of the screen and press the **Info** soft key.

- **c.** Scroll down to the IP Address listing and copy the address.

Step 2 Open a browser on a computer that is connected to the network.

Step 3 In the URL field, type the IP address for the primary codec and press **Enter**. The browser launches the Cisco TelePresence System Administrator.

Step 4 Log in to the system by entering the following information:

- **a.** In the Admin field, type **admin**.
- **b.** In the Password field, type **cisco**.

Note If your administrator has changed the user name or password, enter those values.

Step 5 Click **Login**.

Step 6 Locate the Phone pane in the upper left-hand corner of the administrator page and select **Troubleshooting > System Reset**. the Restart Cisco TelePresence System button appears at the top of the window.

Step 7 Click the **Restart Cisco TelePresence System** button to start the reset.

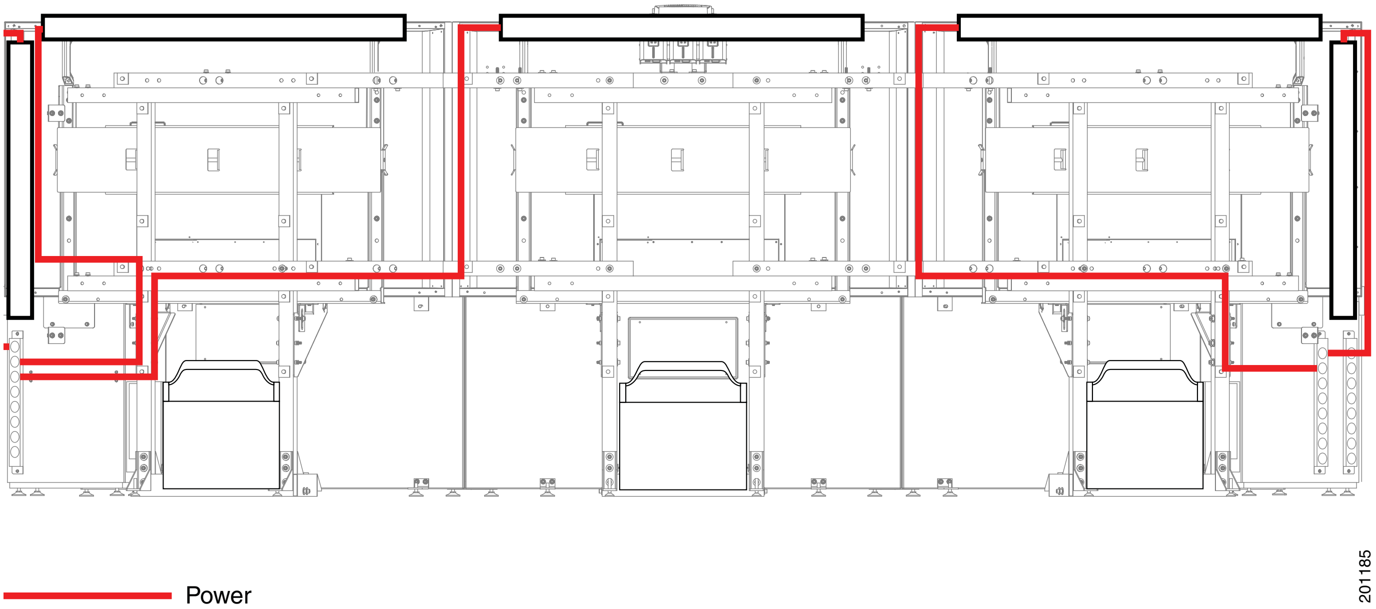
Six boxes appear on the display screens.

Step 8 After the first box changes to a check mark, turn the power switches for the two left PDUs and single right PDU to the Off position.

Note There might be an additional PDU to power off that is mounted on the rear of the center display structure.

Caution Make sure all system power is turned off before beginning this disassembly.

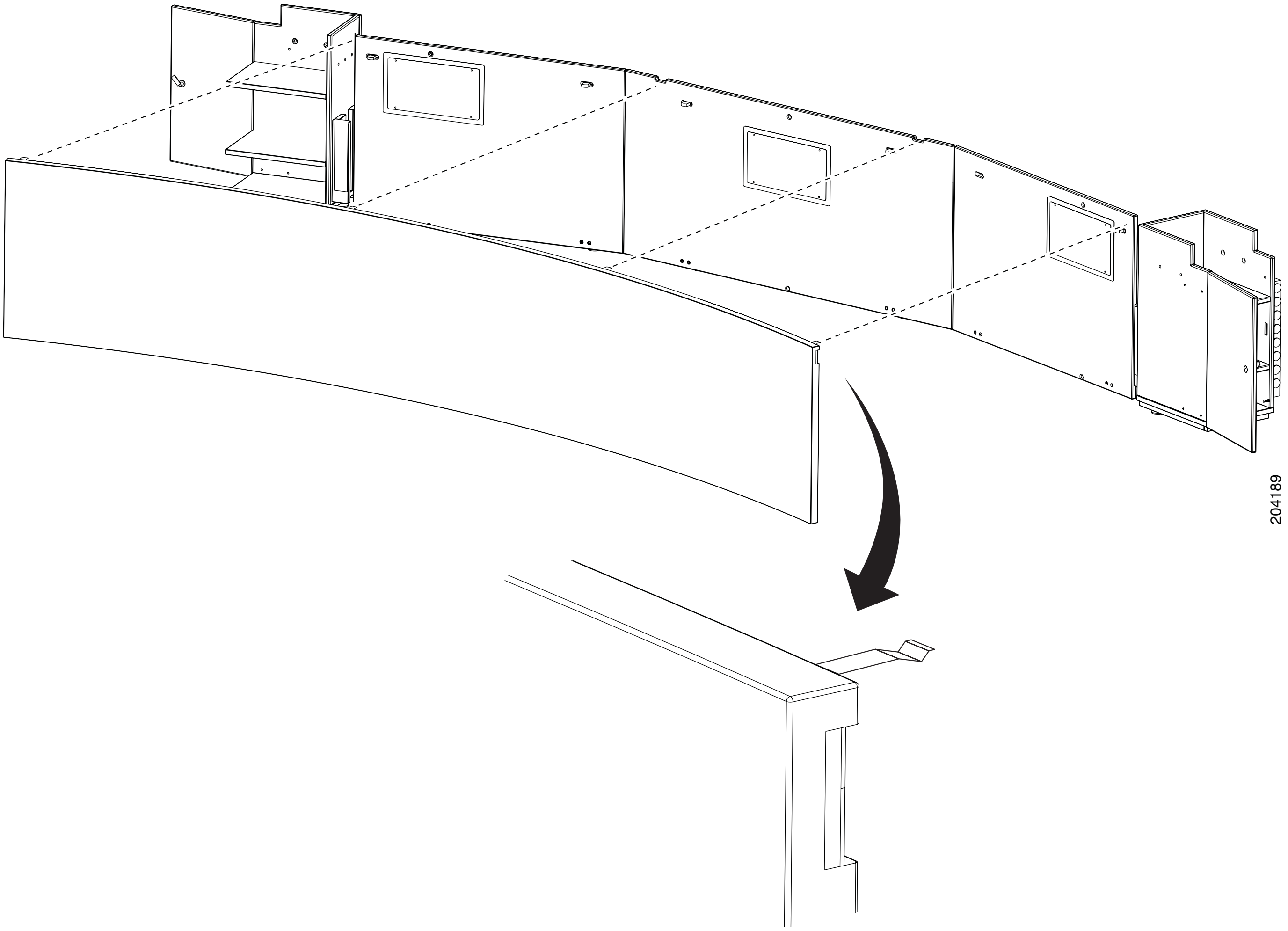
Figure 4-1 PDU Location



Step 9 Remove the projector screen.

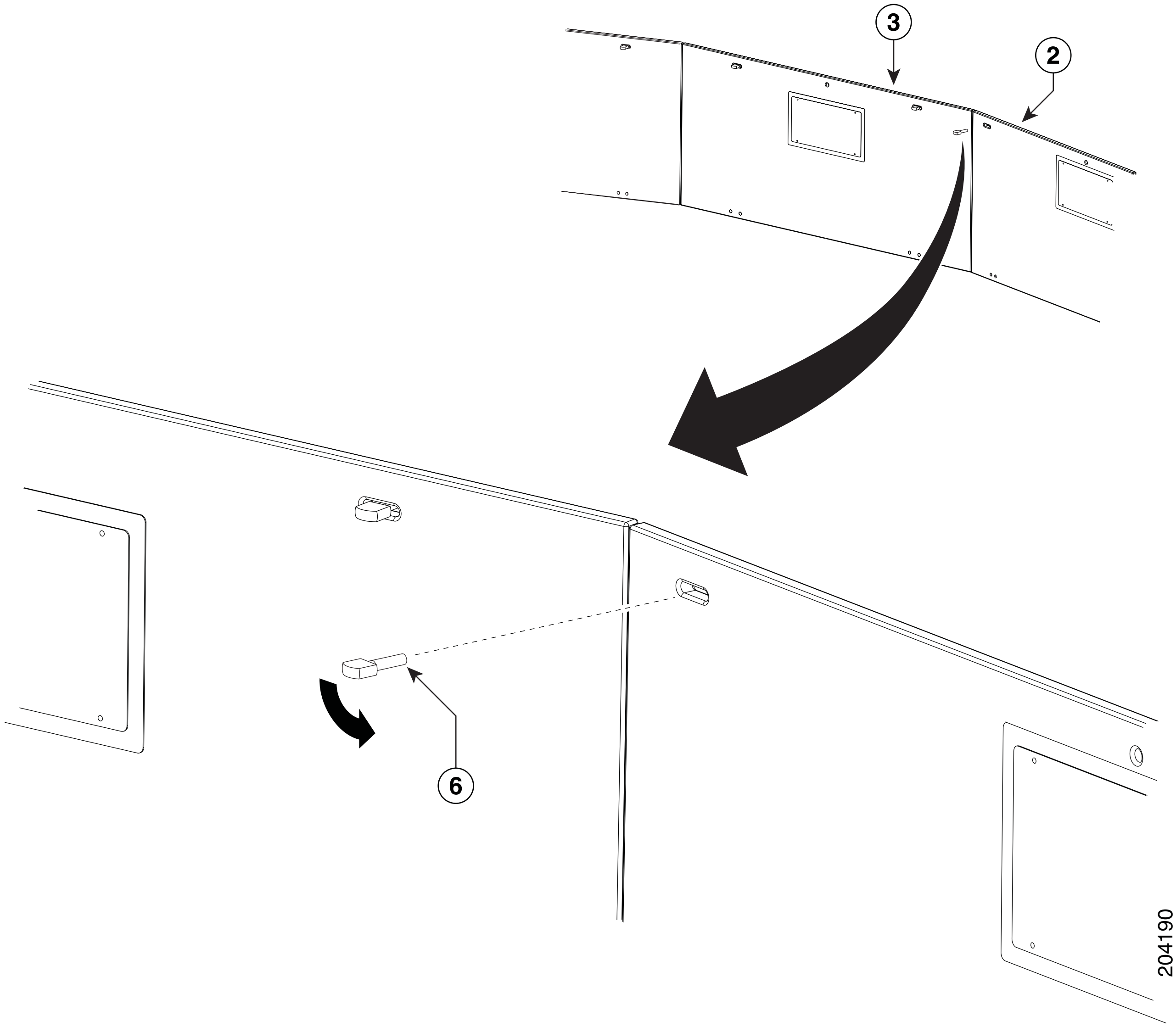
The projector screen is attached to the Cisco TelePresence assembly by clips that are on the top edge and side of the screen. To remove the screen, gently pull outward on the screen where the clips are located.

Figure 4-2 Projector screen Assembly



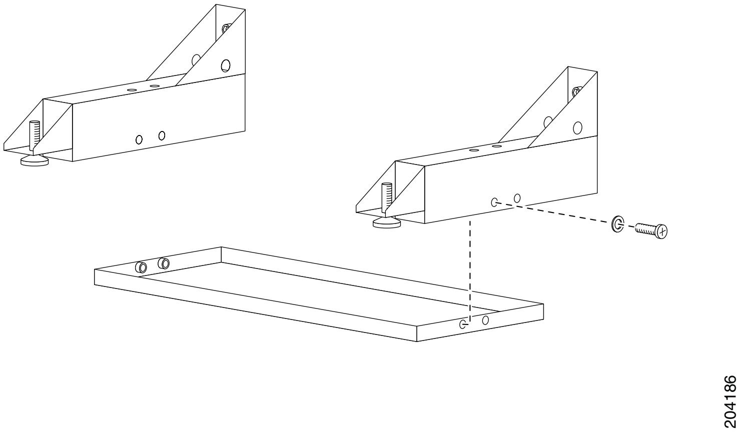
Step 10 Remove the three speaker assemblies. If required, disconnect the speaker cables.

Figure 4-3 Removing the Speaker Assemblies



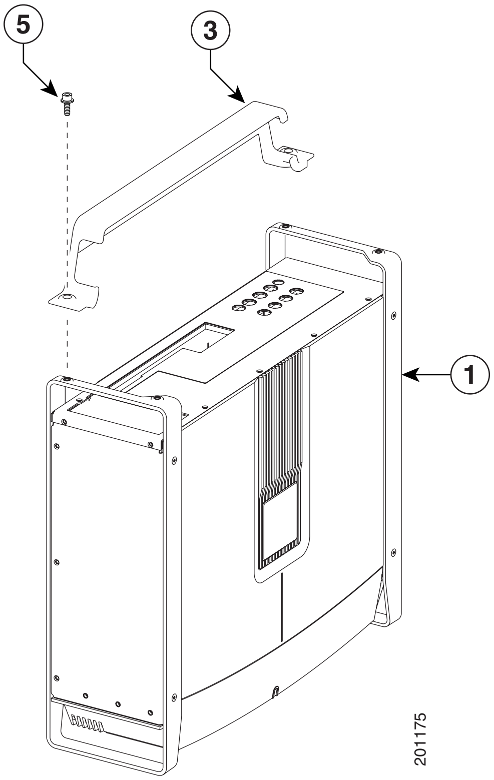
Step 11 Unscrew the four screws that attach the codec safety tray to the frame feet and remove the codec tray.

Figure 4-4 Removing Codec Safety Tray



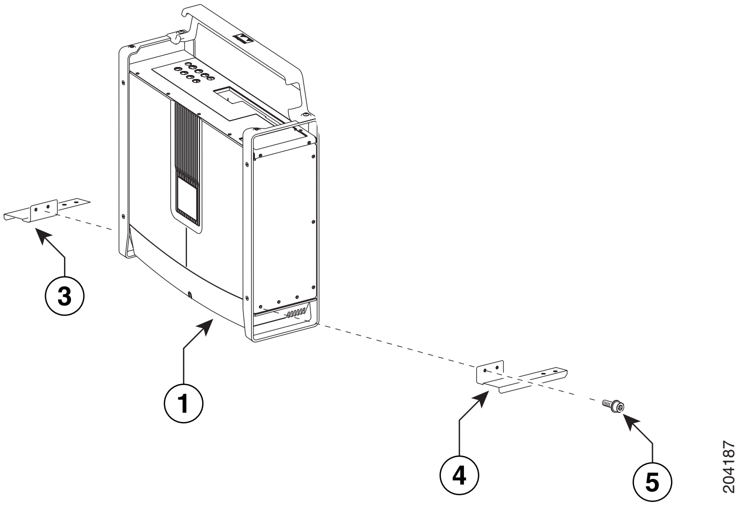
Step 12 Attach the cable management bar to the presentation codec.

Figure 4-5 Cable Management Bar



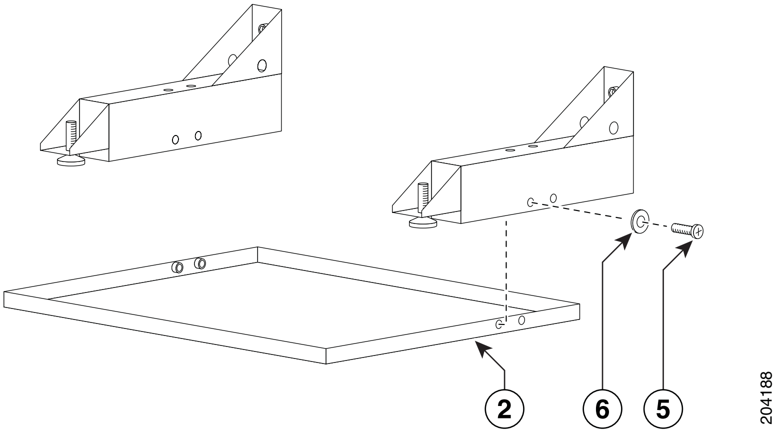
Step 13 Attach the attachment brackets to the presentation codec.

Figure 4-6 Presentation Codec and Attachment Brackets



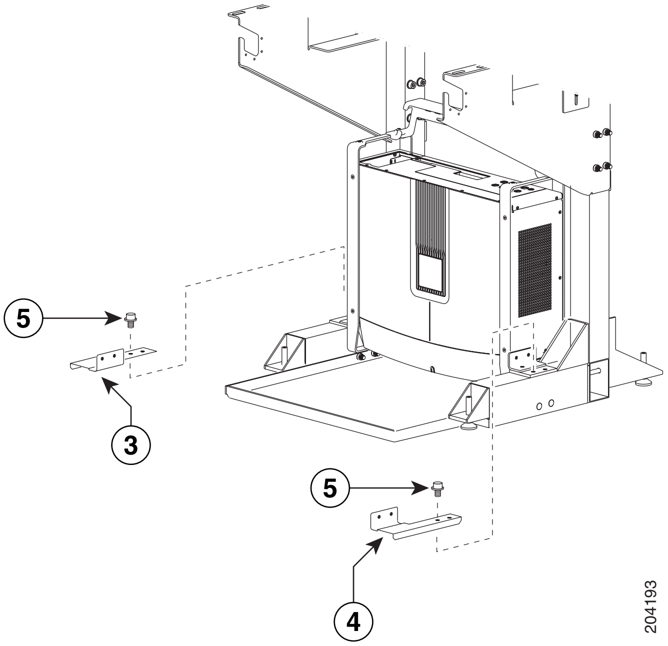
Step 14 Place the double-wide codec tray in between the frame feet and secure it with the screws.

Figure 4-7 Double-Wide Codec Tray



Step 15 Place the presentation codec in front of the new codec tray and attach it to the front feet of the display stand.

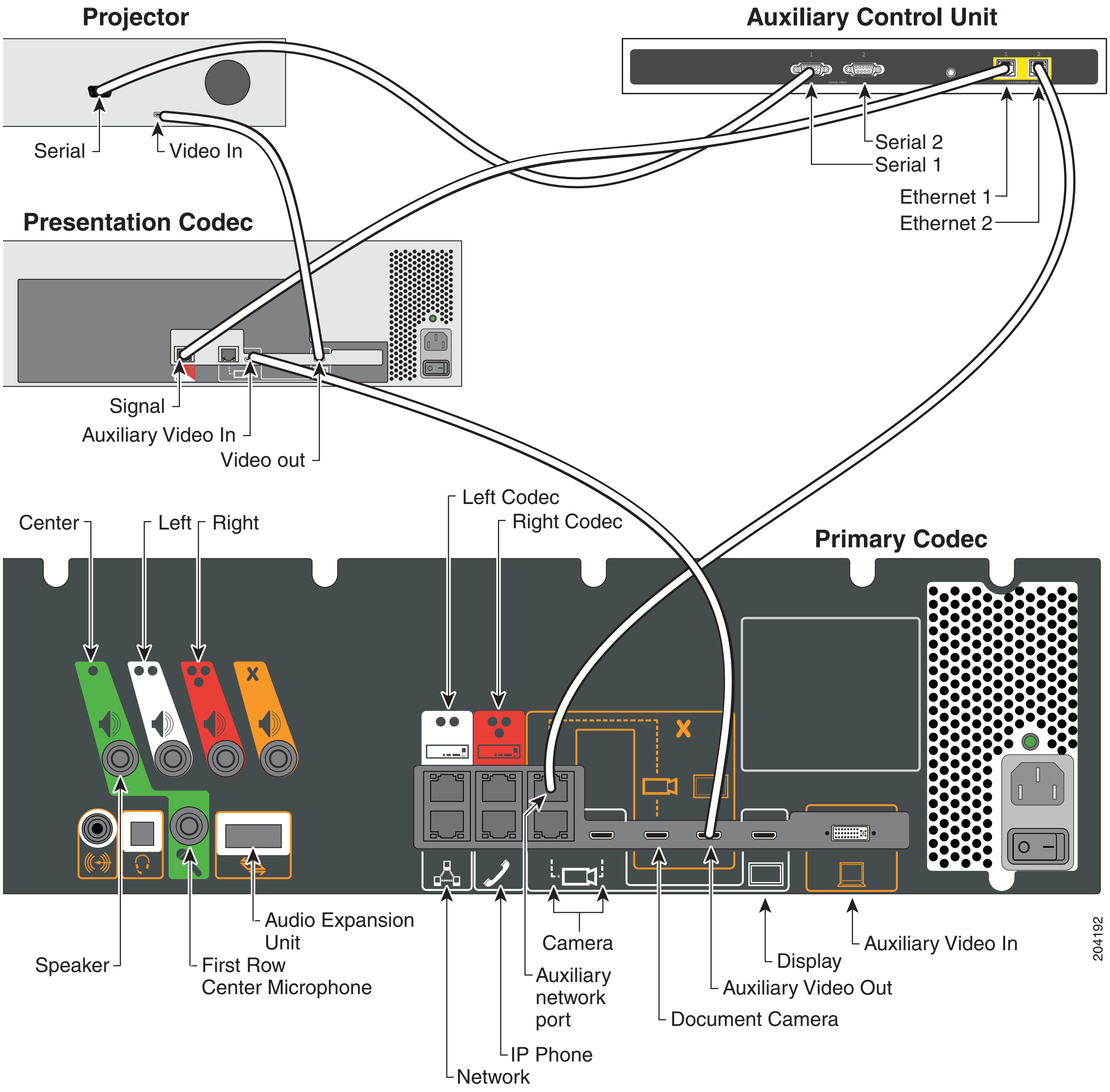
Figure 4-8 Presentation Codec and Display Stand Front Feet



Step 16 Route the signal cables for the presentation codec using one of the following diagrams:

- For a standard CTS-3200 installation, use the following wiring diagram for the presentation codec.

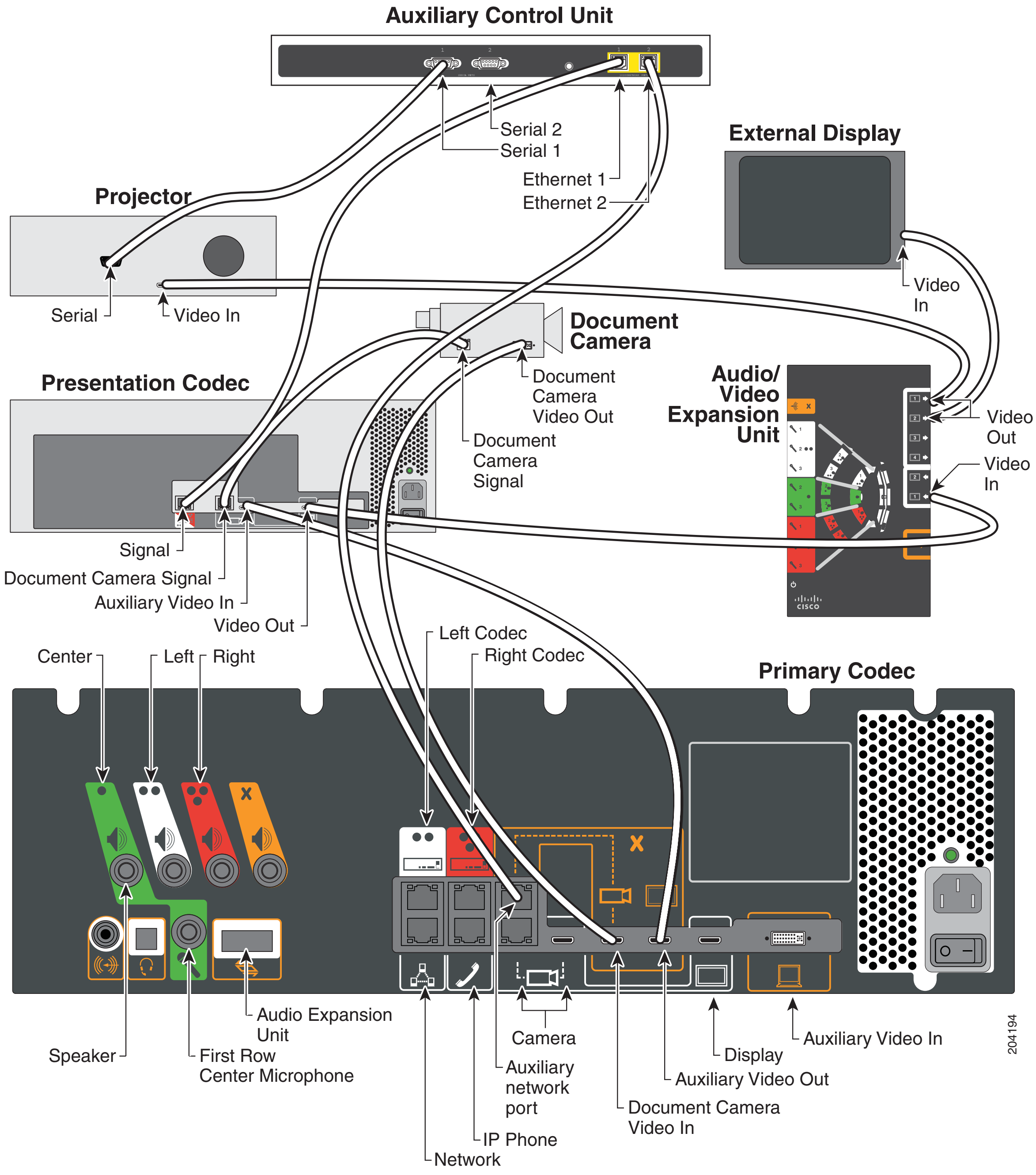
Figure 4-9 Cable Routing for Presentation Codec


Projector
Auxiliary Control Unit
Serial
Video In
Serial 2
Serial 1
Ethernet 1
Ethernet 2
Presentation Codec
Signal
Auxiliary Video In
Video out
Left Codec
Right Codec
Center
Left
Right
Primary Codec
Audio Expansion Unit
Speaker
First Row Center Microphone
Camera
Auxiliary network port
IP Phone
Network
Display
Auxiliary Video In
Auxiliary Video Out
Document Camera
204192

- For a Cisco TelePresence 3000 installation that uses an optional document camera, external display, or HDMI splitter for multiple video displays, use the following wiring diagram for the presentation codec. If you use the Audio Expansion Unit to split the video signal for en external display, make sure that you connect the incoming signal to the first Video In connection as shown in Figure 4-9.

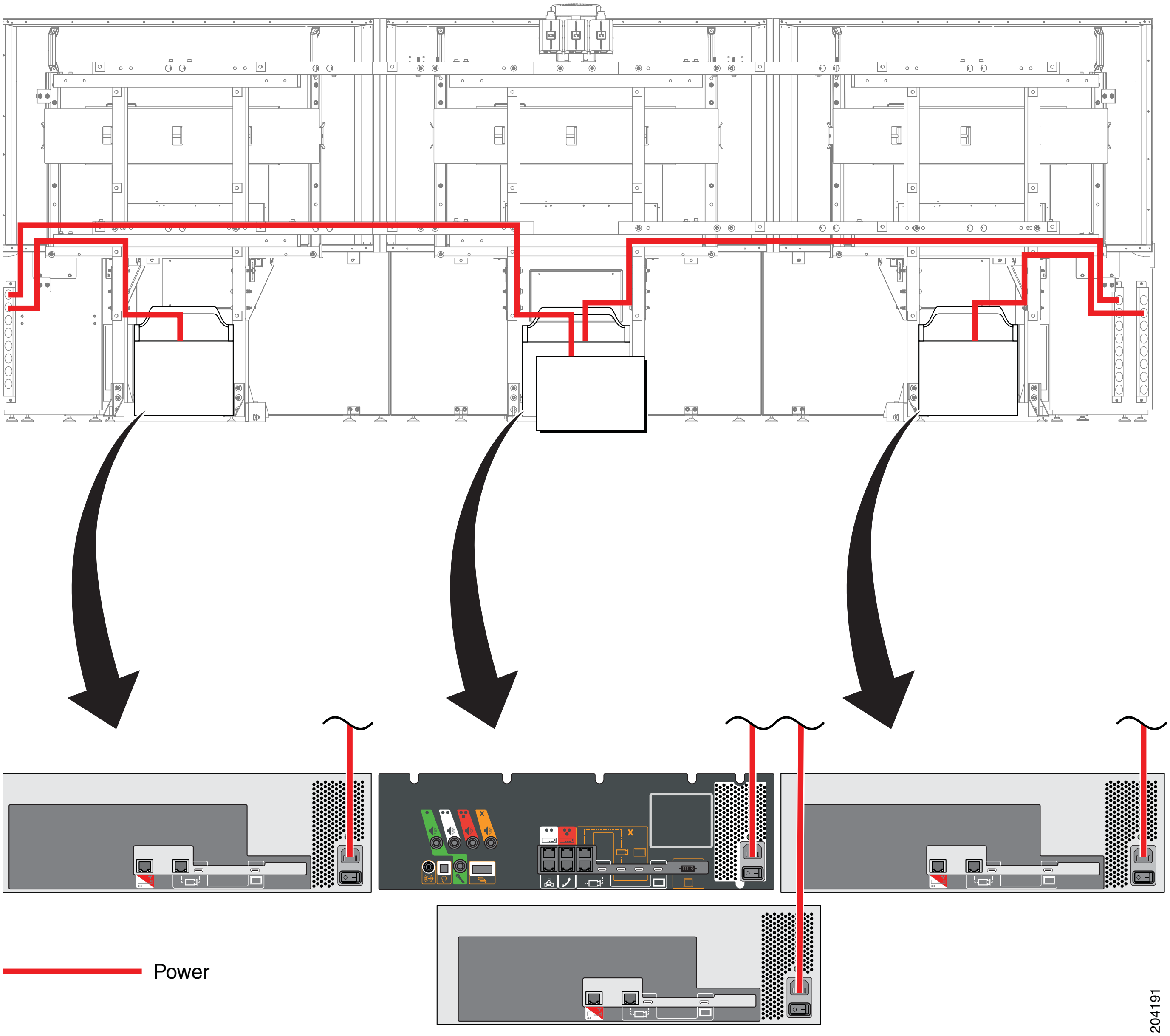
Note For a list of the external displays that Cisco TelePresence supports, refer to the *Release Notes for Cisco TelePresence System, Release 1.4*.

Figure 4-10 Cable Routing for Presentation Codec, Document Camera and External Display


Auxiliary Control Unit
Serial 2
Serial 1
Ethernet 1
Ethernet 2
External Display
Projector
Serial
Video In
Video In
Document Camera
Document Camera Video Out
Document Camera Signal
Presentation Codec
Audio/ Video Expansion Unit
Video Out
Video In
Signal
Document Camera Signal
Auxiliary Video In
Video Out
Left Codec
Right Codec
Center
Left
Right
Primary Codec
Speaker
Audio Expansion Unit
First Row Center Microphone
Camera
Auxiliary network port
IP Phone
Network
Document Camera Video In
Auxiliary Video Out
Display
Auxiliary Video In
204194

Step 17 Route the power cables for the presentation codec.

Figure 4-11 Presentation Codec Cable Routing



Step 18 Power on the CTS-3000 by turning the power switches to the On position for the two left PDUs, single right PDU, and the PDU on the central display if it is present.

Note Write down the IP address that displays on the bottom right corner of the display screens. This is the address of the primary codec unit.

Step 19 In the browser on the computer, type in the IP address of the primary codec unit.

Step 20 Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.

Step 21 Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.

Step 22 Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.

Step 23 Navigate to the **Device Information > Configuration > CUCM settings** window, then perform the following actions:

- **a.** In the Certificate Trust List (CTL) area, delete the Certificate Trust List (CTL) from your system by clicking **Delete CTL**.
- **b.** In the Use Configuration TFTP Server area, click **Automatic** to set TFTP conditions to their default value and remove any alternate TFTP servers.

Note If you encounter problems, you might have to reboot your presentation codec several times before it becomes active. To reboot the presentation codec, turn off and on the PDU where you plugged in the presentation codec.

Configuring a Cisco TelePresence Presentation Codec

To configure your audio extension unit with your CTS-3000, refer to *Cisco TelePresence System Administrator's Guide* for your software release.

Optional Switch for Ethernet Connectivity

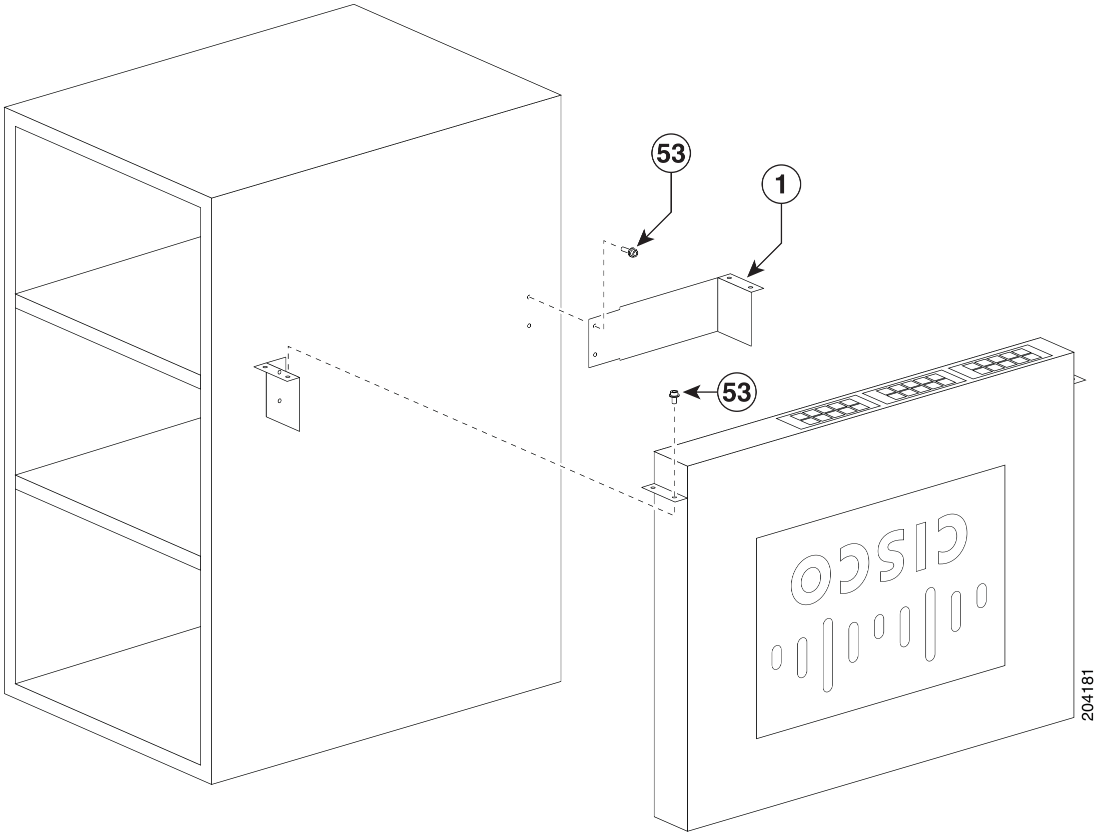
The optional 18 port switch allows all second participants to have Ethernet connectivity via the table leg Ethernet connections.

Adding the Optional Switch

To add the optional switch, perform the following procedure:

Step 1 Install the switch and switch bracket on the right accessory cabinet.

Figure 4-12 Switch and Switch Bracket



Step 2 Route the cables for the switch. You use six ports for the first row of tables, and 12 ports for the second row of tables.

CHAPTER 5

Upgrading a Cisco TelePresence System 3000 to a Cisco TelePresence System 3200

Revised: July 28, 2008, OL-16441-01

Upgrading a CTS-3000 to a CTS-3200: Summary Steps

The following are the summary steps that you perform to upgrade a CTS-3000 system to a CTS-3200 system. Detailed information about the steps you perform are referenced in these steps.

Note For room and other minimum installation requirements, refer to the *Cisco TelePresence System 3200 Data Sheet*. For more information about installing a CTS-3200, refer to the *Cisco TelePresence System 3200 Assembly, Use & Care, and Field Replacement Unit Guide*.

Caution The table segments are unstable during assembly. Use caution, and support all structures as required.

Warning **Only trained and qualified personnel should be allowed to install, replace, or service this equipment.**

Caution Table elements are heavy, and metal edges can be very sharp. Protect your hands and eyes from injury by wearing safety gloves and glasses.

Caution In order to prevent scratching the table tops, you should avoid putting any tools on the shelf surfaces.

Note The directions *left* and *right* refer to the assembly as you face it from the front.

Warning **Table legs are unstable until they are fully attached to the tabletop. Do not use unattached table legs as tabletop supports while you attach tabletop segments. They can fall and cause injury or damage. Cisco suggests you use the accessory cabinets to support and stabilize the table segments as you install them.**

Step 1 Power down the system. See the "Powering Off the System" section on page 5-3 for more information.

Caution Make sure all system power is turned off before beginning the upgrade procedure.

Step 2 Replace the existing primary with the new primary codec. See the "Replacing the New Primary Codec" section on page 5-3 for more information.

Step 3 Replace the lenses in the camera cluster with the lenses for the CTS-3200. See the "Removing and Replacing the Camera Lenses" section on page 5-6 for more information.

Step 4 Add the audio extension unit to the rear of the display assembly. See the "Adding the Audio/Video Expansion Unit" section on page 5-8 for more information.

Step 5 Add the auxiliary control unit to the rear of the display assembly. See the "Adding the Auxiliary Control Unit" section on page 5-10 for more information.

Step 6 Add the second row table, microphones, I/O modules, and power and signal cables. See the "Building the Second Row Table Assembly" section on page 5-12 for more information.

Step 7 Route the cables for the second row table and attach and route the cables for the audio extension unit and auxiliary control unit. See "Attaching and Routing Cables" section on page 5-63 for more information.

Note If you require additional information, refer to the "Routing Power and Signal Cables" chapter of the *Cisco TelePresence System 3200 Assembly, Use & Care, and Field Replacement Unit Guide*.

Step 8 Configure Cisco Unified Communications Manager and power on the system. See the "Powering On the System" section on page 5-71 for more information.

Step 9 Perform the first-time setup steps and reliagn the cameras using the instructions in the *Cisco TelePresence System Administrator's Guide*.

Required Information, Tools, and Equipment

To perform the upgrade from the CTS-3000 to a CTS-3200, you need the following information, tools, and equipment:

- *Cisco TelePresence System Release 1.4 Administrator's Guide*, OL-13676-03
- *Release Notes for Cisco TelePresence System, Release 1.4*, OL-12074-05
- Power screwdriver with 2.5, 3, and 6 mm (standard or round) Allen bits, or standard 2.5, 3, and 6 mm Allen wrenches
- Manual screwdrivers, Phillips and flat head types
- Metric wrenches, 10 to 15 mm
- Masking tape
- Laptop computer attached to network

Powering Off the System

To power off the system, complete the following steps.

Step 1 Get the IP address for the primary codec by completing the following steps:

a. On the IP phone, locate Manual at the bottom of the screen and press the **Manual** soft key.

Note If you cannot locate the Manual button, proceed to Step b.

b. Locate Info at the bottom of the screen and press the **Info** soft key.

c. Scroll down to the IP Address listing and copy the address.

Step 2 Open a browser on a computer that is connected to the network.

Step 3 In the URL field, type the IP address for the primary codec and press **Enter**. The browser launches the Cisco TelePresence System Administrator.

Step 4 Log in to the system by entering the following information:

a. In the Admin field, type **admin**.

b. In the Password field, type **cisco**.

Note If your administrator has changed the user name or password, enter those values.

Step 5 Click **Login**.

Step 6 Locate the Phone pane in the upper left-hand corner of the administrator page and select **Troubleshooting > System Reset**. The Restart Cisco TelePresence System button appears at the top of the window.

Step 7 Click the **Restart Cisco TelePresence System** button to start the reset.

Six check boxes display on the lower right corner of the center display screen.

Step 8 After the first box changes to a check mark, turn the power switches for the following units to the Off position:

- The two left PDUs on the left accessory cabinet
- The single right PDU on the right accessory cabinet
- If present, the PDU on the center display structure

Replacing the New Primary Codec

To replace the existing primary codec with the new primary codec, complete the following steps:

Step 1 Remove all cable ties holding the cables to the cable management bar. Take note of the organization of the cables.

Step 2 Remove the cables from the codec. Label each cable with masking tape for identification as it is removed.

Step 3 Remove and retain the screws that attach the codec's L-brackets to the Display structure Front feet.

Step 4 Remove the codec from the Display structure.

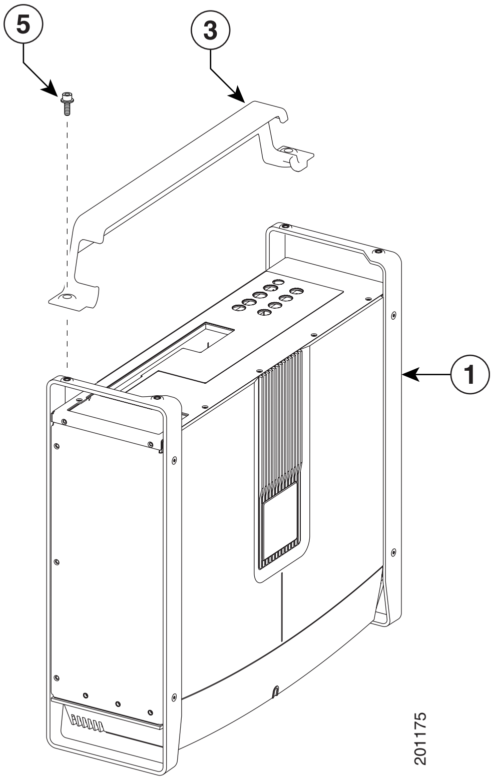
Step 5 Remove the L brackets from the codec.

Step 6 Remove the cable management bar from the codec. Retain the bar and the screws.

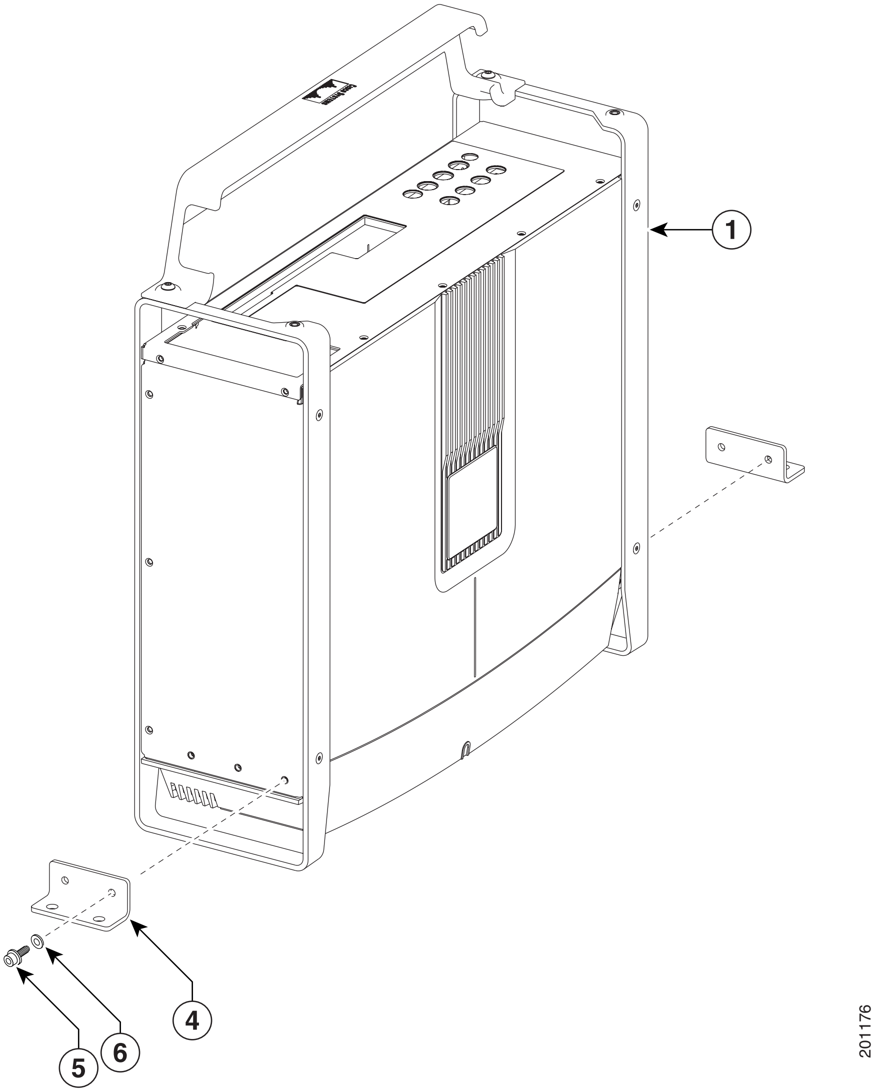
Step 7 Make a note of the MAC address of the new primary codec. The MAC address should be printed on a sticker on the codec. You configure Cisco Unified Communications Manager to use the new MAC address in the "Powering On the System" section on page 5-71.

Step 8 Attach the cable management bar to the new primary codec.

Figure 5-1 Cable Management Bar



Step 9 Attach the brackets to the new primary codec.



Step 10 Insert the new codec into the display stand from the rear of the display assembly and secure it with the screws.

Step 11 Re-attach the cables for the primary codec.

Note You connect the cables to the new primary codec the same as the existing primary codec with the exception of the left and right microphone cables. You attach those cables to the audio extension unit in the "Attaching and Routing Cables" section on page 5-63.

Removing and Replacing the Camera Lenses

Caution Take care not to scratch or mar the display screen during the replacement procedure.

Note The directions *left* and *right* refer to the assembly as you face it.

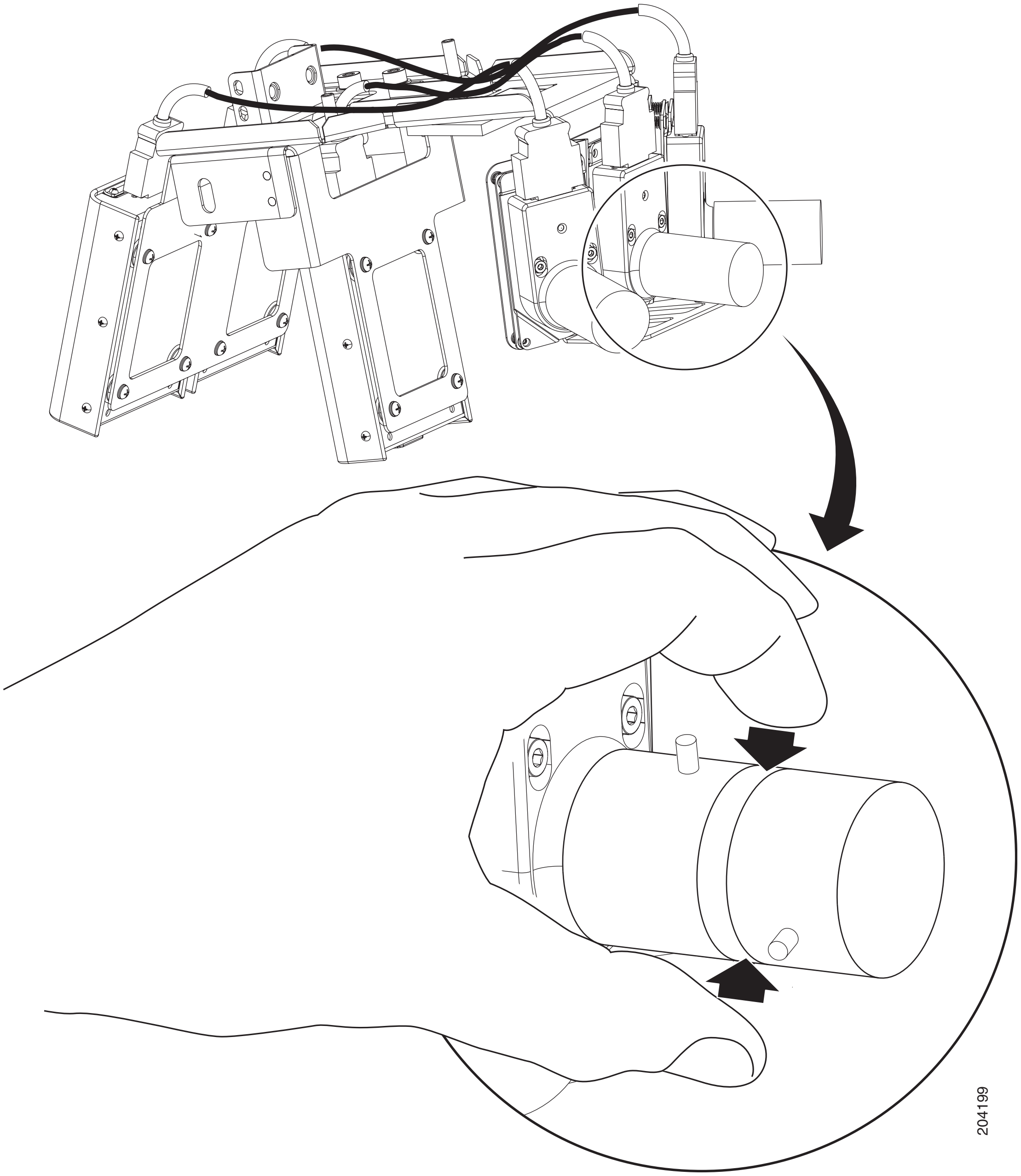
Caution Make sure all system power is turned off before beginning this disassembly.

Step 1 Remove the top camera hood by removing the screws that secure it to the bracket.

Step 2 Remove the lens hood by removing the two screws on the bottom of the hood.

Step 3 Carefully unscrew the lenses from the camera assembly.

Figure 5-2 *Removing Lenses from The Camera Assembly*



Step 4 Attach the new lenses to the camera assembly. Tighten until the lenses are seated and finger-tight but do not overtighten.

Step 5 Re-attach the camera hood and lens hood.

Adding the Audio/Video Expansion Unit

To add the audio extension unit for the Cisco TelePresence 3000, you need the following tools and equipment:

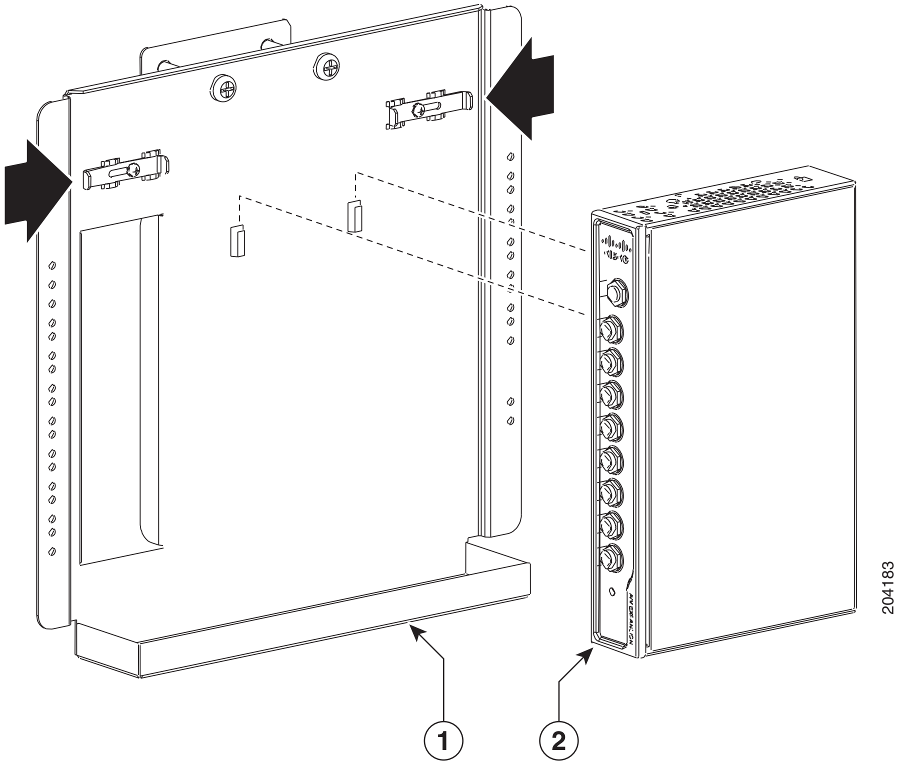
- Large Phillips head screwdriver

Remove and replace the audio extension unit by completing the following steps.

Step 1 Remove the audio extension unit from its packaging.

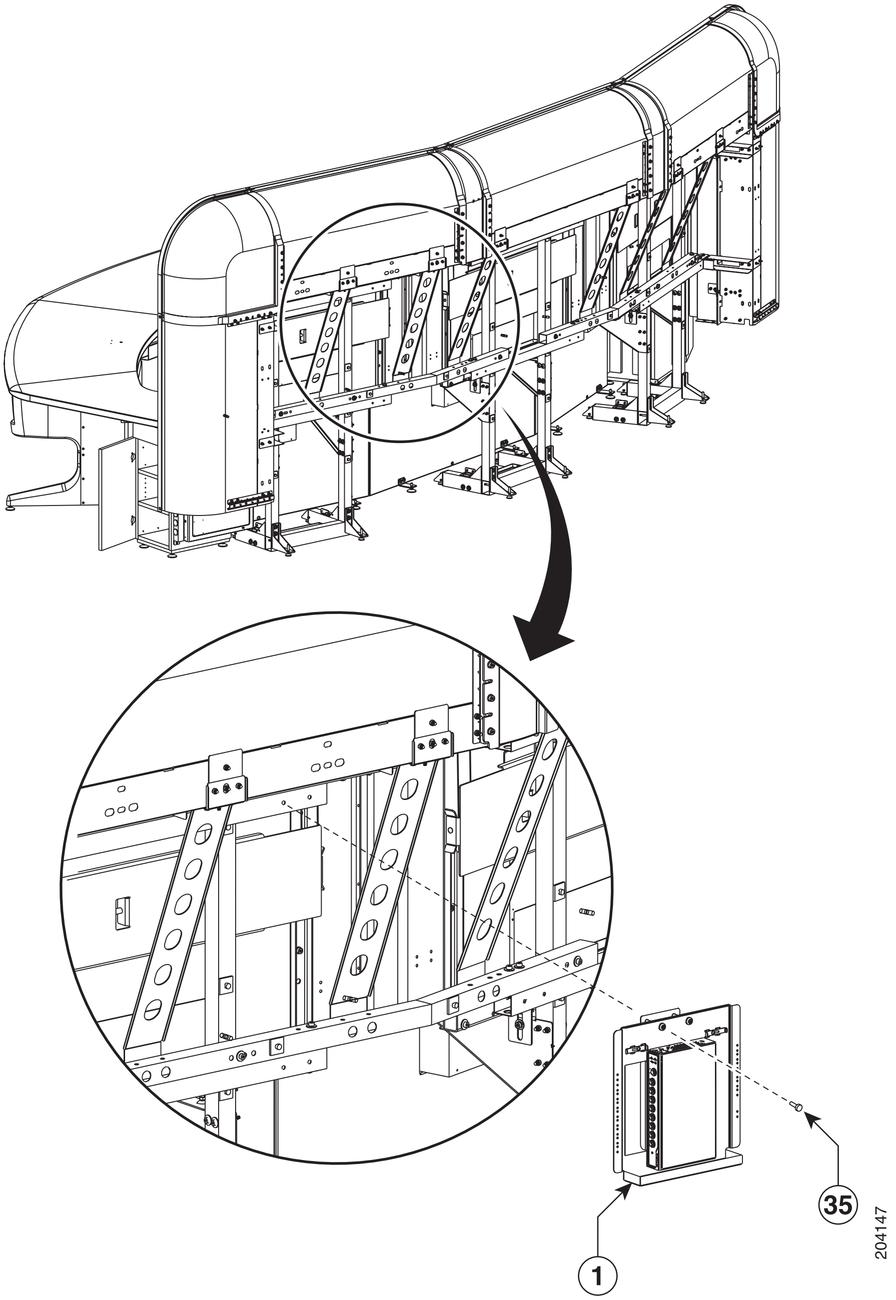
Step 2 Attach the Audio Extension Unit.to its bracket.

Figure 5-3 Audio Extension Unit and Bracket



Step 3 Attach the Audio Extension Unit to the display assembly.

Figure 5-4 Audio Extension Unit and Display Assembly



Step 4 Attach the new extension unit to the display structure with the screws that are provided in the package.

Adding the Auxiliary Control Unit

To add the auxiliary control unit Cisco TelePresence 3000, you need the following tools and equipment:

- Large Phillips head screwdriver
- Masking tape

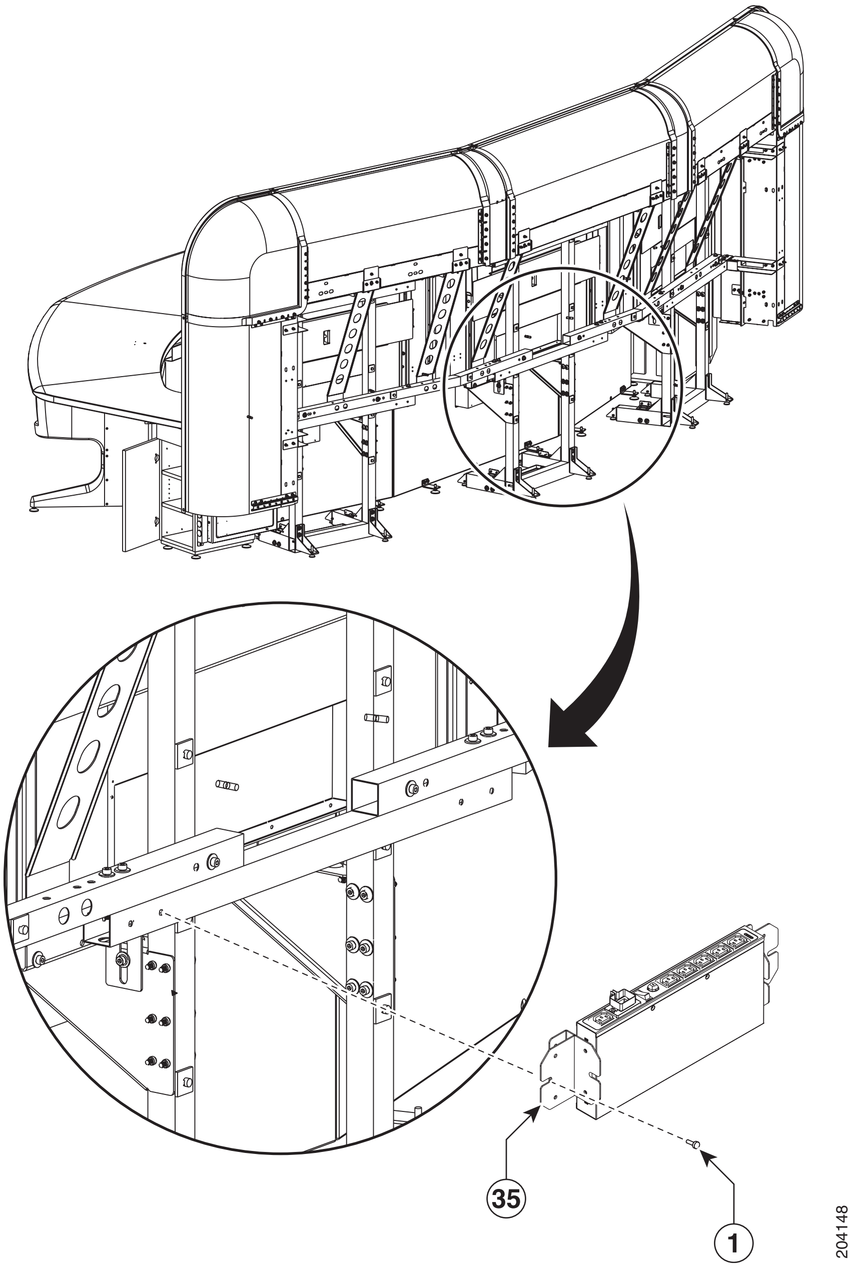
Remove the replace the audio extension unit by performing the following procedure:

Step 1 Remove the auxiliary control unit from its packaging.

Step 2 Attach the auxiliary control unit to its bracket using the supplied 5 mm screws.

Step 3 Attach the auxiliary control unit to the rear of the display assembly with the screws that are provided in the package.

Figure 5-5 Auxiliary Control Unit



Building the Second Row Table Assembly

To build the second row table assembly, complete the following procedure. Use the provided parts list as a guide for the illustrations in this section.

Parts List

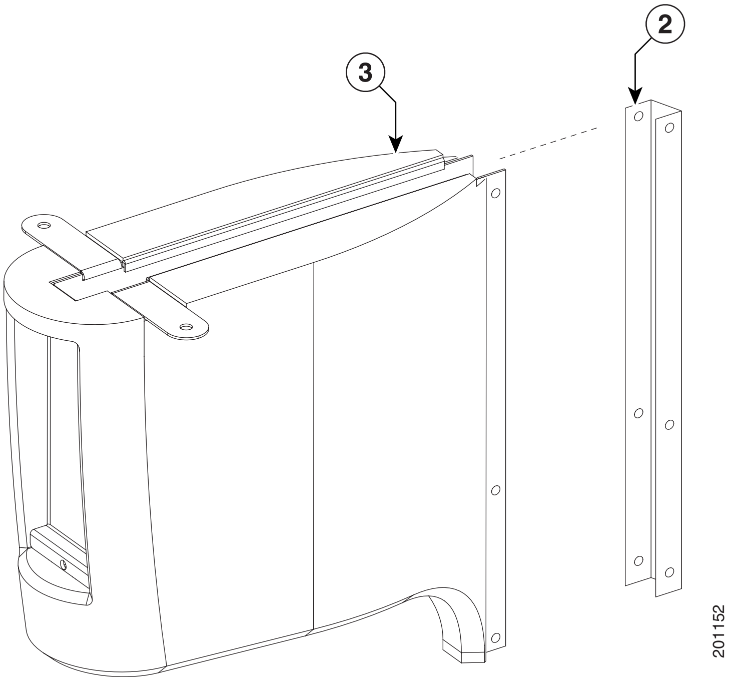
Key	Part Description	Part Number	Qty	Ctn	Notes
1	Tabletop leg base	700-23335-01	7	61	
2	Metal packaging brace	700-24275-01	4	61	
3	Molded foam bumper	800-28625-01	4	61	
4	Gutter support bracket, type 1	700-27280-xx	2	61	
5	Gutter support bracket, type 2	700-27279-xx	5	61	
6	Gutter panel, section 1	800-31126-xx	1	61	
7	Gutter panel, section 2	800-31129-xx	1	61	
8	Gutter panel, section 3	800-31131-xx	1	61	
9	Gutter panel, section 4	800-31133-xx	1	61	
10	Gutter panel, section 5	800-31124-xx	2	61	
11	Privacy panel hangers	700-27311-xx	14	61	
12	Floating bracket, type 1	700-27282-xx	2	61	
13	Floating bracket, type 2	700-27281-xx	2	61	
14	Tabletop: section 1	95-9995-01 Kit # 74-5565-01	1	47	
15	Tabletop: section 2	95-10096-01 Kit # 74-5600-01	1	48	
16	Tabletop: section 3	95-10097-01 Kit # 74-5601-01	1	49	
17	Tabletop: section 4	95-10098-01 Kit # 74-5602-01	1	50	
18	Tabletop: section 5	95-9994-01 Kit # 74-5562	2	44	
19	Tabletop end, left (section 6)	95-10099-01 Kit # 74-5603-01	1	51	
20	Tabletop end, right (section 7)	95-10100-01 Kit # 74-5604	1	52	
21	Tabletop end brace	700-27413-xx	2	61	
22	Privacy panel support bracket, section 1	700-27275-xx	1	61	
23	Privacy panel support bracket, section 2	700-27276-xx	1	61	
24	Privacy panel support bracket, section 3	700-27277-xx	1	61	
25	Privacy panel support bracket, section 4	700-27278-xx	1	61	

Key	Part Description	Part Number	Qty	Ctn	Notes
26	Privacy panel support bracket, section 5	700-27274-xx	2	61	
27	Privacy panel, section 1	800-31112-01	1	61	
28	Privacy panel, section 2	800-31116-01	1	61	
29	Privacy panel, section 3	800-31117-01	1	61	
30	Privacy panel, section 4	800-31119-01	1	61	
31	Privacy panel, section 5	800-31121-01	2	61	
32	Privacy Panel, left end (section 6)	800-31123-01	1	61	
33	Privacy Panel, right end (section 7)	800-31122-01	1	61	
34	Tabletop attachment plate, metal	700-27292-01	2	61	
35	M8 x 16 mm screws, black	48-2430-01	232	21	
36	M8 x 2.5mm screws	48-2437	30	21	
37	M4 x 12 mm pan head screws	48-2426-01	24	21	
38	Screw, 8 x 50 mm, with plastic knob	48-2298-01	14	21	
39	Draw bolt	No part number	14	1	
40	Spline	No part number	5	1	
41	Cable Cover for right end privacy panel		1		
42	Velcro attachments for cable guide	No part number	2		Included with cable cover
43	I/O blank: large	69-1830-01	2	21	
44	I/O blank: small	700-23807-01	14	21	
45	I/O modules: power/Ethernet	74-xxxx-xx	12	1	Part number changes per country. Refer to "Appendix B: Region- and Country-Specific Equipment" in the *Cisco TelePresence System 3200 Assembly, Use & Care, and Field Replacement Unit Guide* for part number.
46	I/O Module Cover plate	700-23305-01	4	41, 42, 43, 44	
47	Cat6 Ethernet cord	37-0887-02 (3M) 37-0901-01 (10M) 37-0965-01 (12M)	1 8 3	21	
48	3 m Jumper cord	37-0833-01	9	1	
49	M4 nuts	49-0326-01	20	1	
50	M4 x 12 mm screws, black	48-2426-01	10	1	
51	Microphone	74-4743-01	6	1	
52	M4 x 30 mm screws				Included in Microphone kit.
53	M4 washers				Included in Microphone kit.
54	Power distribution units	74-4787-01	2	7	Chapter 7, 8
55	Screws			1	

Key	Part Description	Part Number	Qty	Ctn	Notes
56	M8 shoulder screws for Floating Brackets	69-1880-01	28	1	
	Microphone extension cords, 9.5M	37-0931-01	6	21	Attach these cords to the microphone cables to reach the audio extension unit.
	Touch-up paint, dark gray	79-2269-01/ 95-10160-01	1	21	Use this to cover any imperfections for the privacy panel that are caused by assembly, shipping or handling.

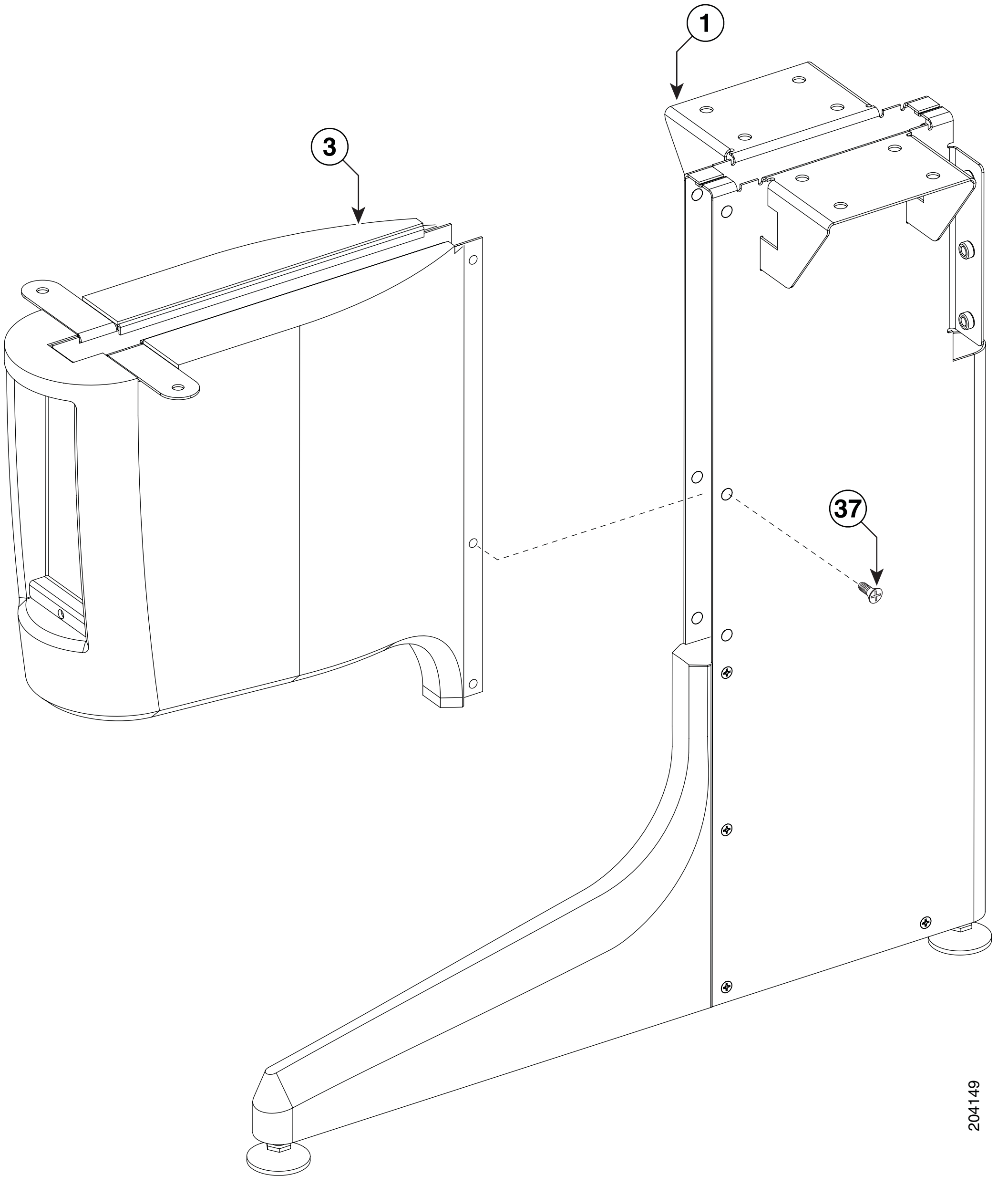
Step 1 Remove the Metal packaging braces from the Molded foam bumpers.

Figure 5-6 Metal packaging braces and their Molded foam bumpers



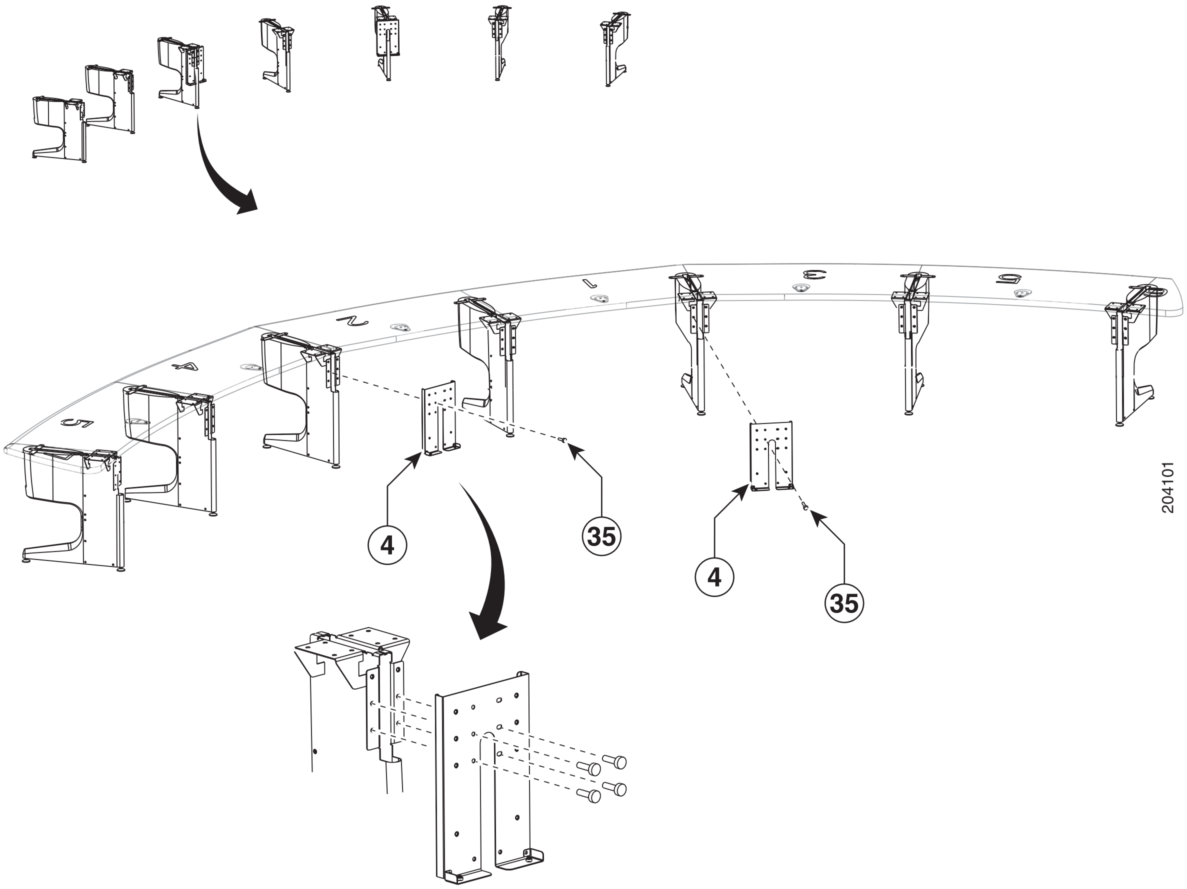
Step 2 Assemble the seven Molded foam bumpers and the seven Table leg bases.

Figure 5-7 Four Molded foam bumpers and the four Table leg bases



Step 3 Attach the first set of support brackets for the gutter and privacy panel to the table legs.

Figure 5-8 Gutter and Privacy Panel Support Brackets, Type 1

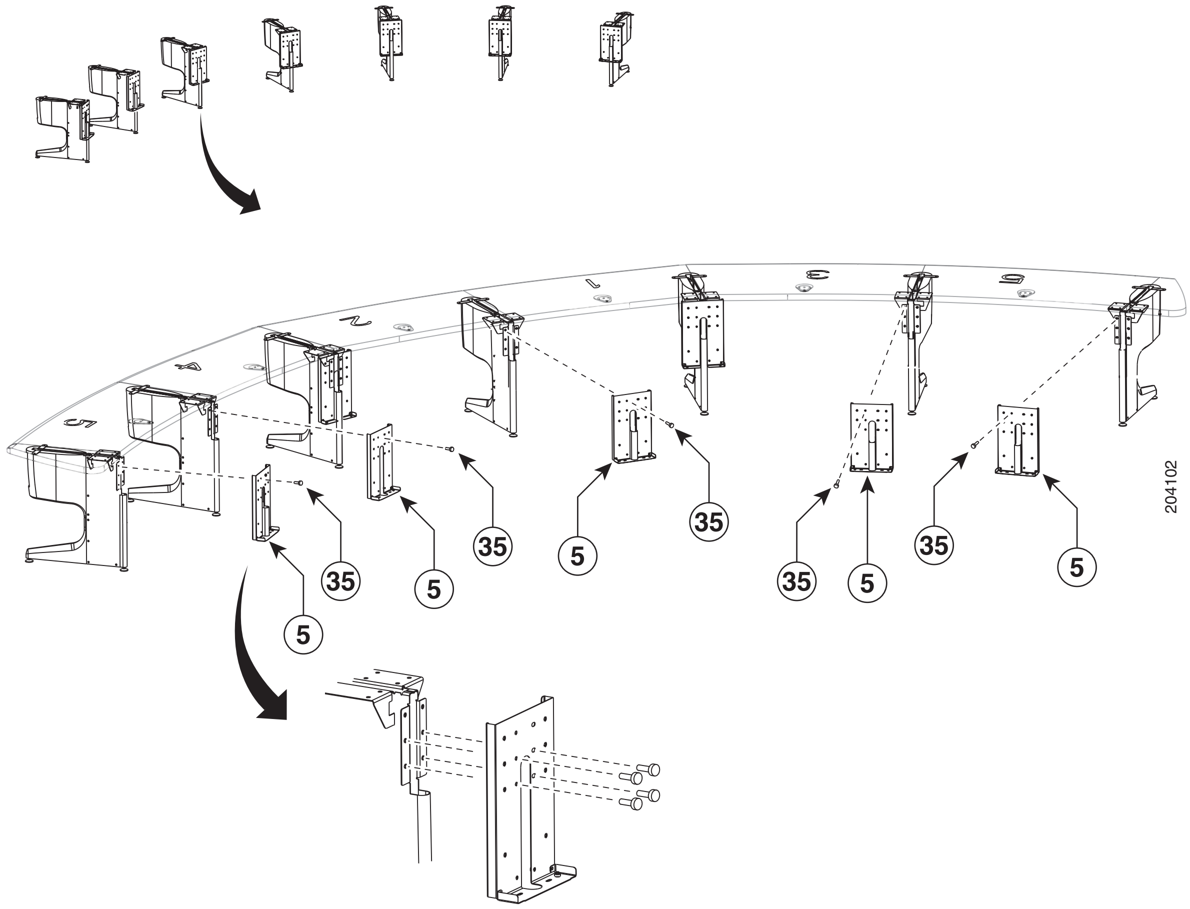


Note Note the table layout. Each section is numbered as shown in Figure 5-8. Each cable gutter and privacy panel is different. The numbering for the cable gutters and privacy panels correspond to the numbering for the table top.

Tip When you attach the support brackets, it can be helpful to turn the table leg upside-down.

Step 4 Attach the second set of five support brackets to the table legs.

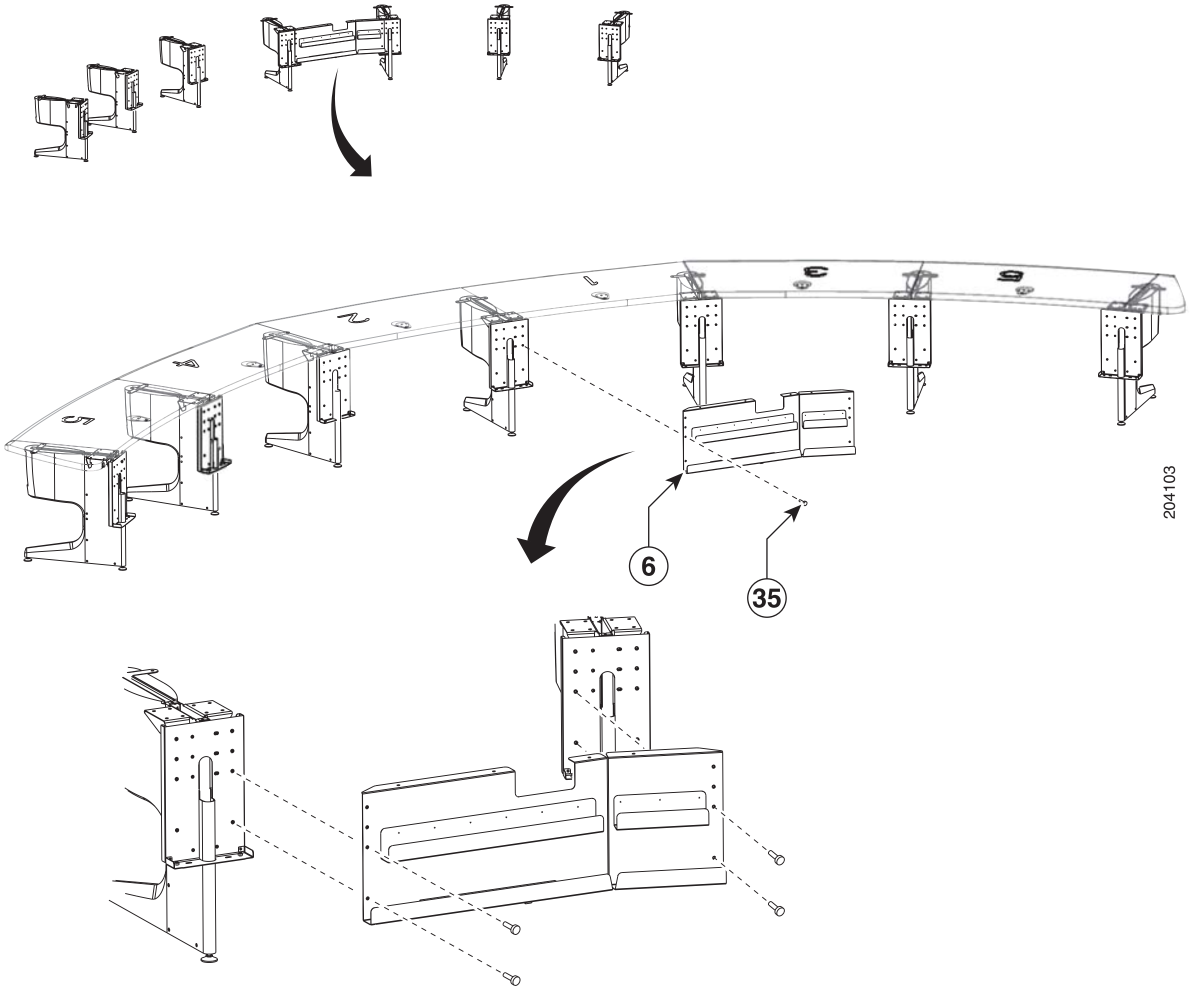
Figure 5-9 Gutter and Privacy Panel Support Brackets, Type 2



Tip When you attach the support brackets, it can be helpful to turn the table leg upside-down.

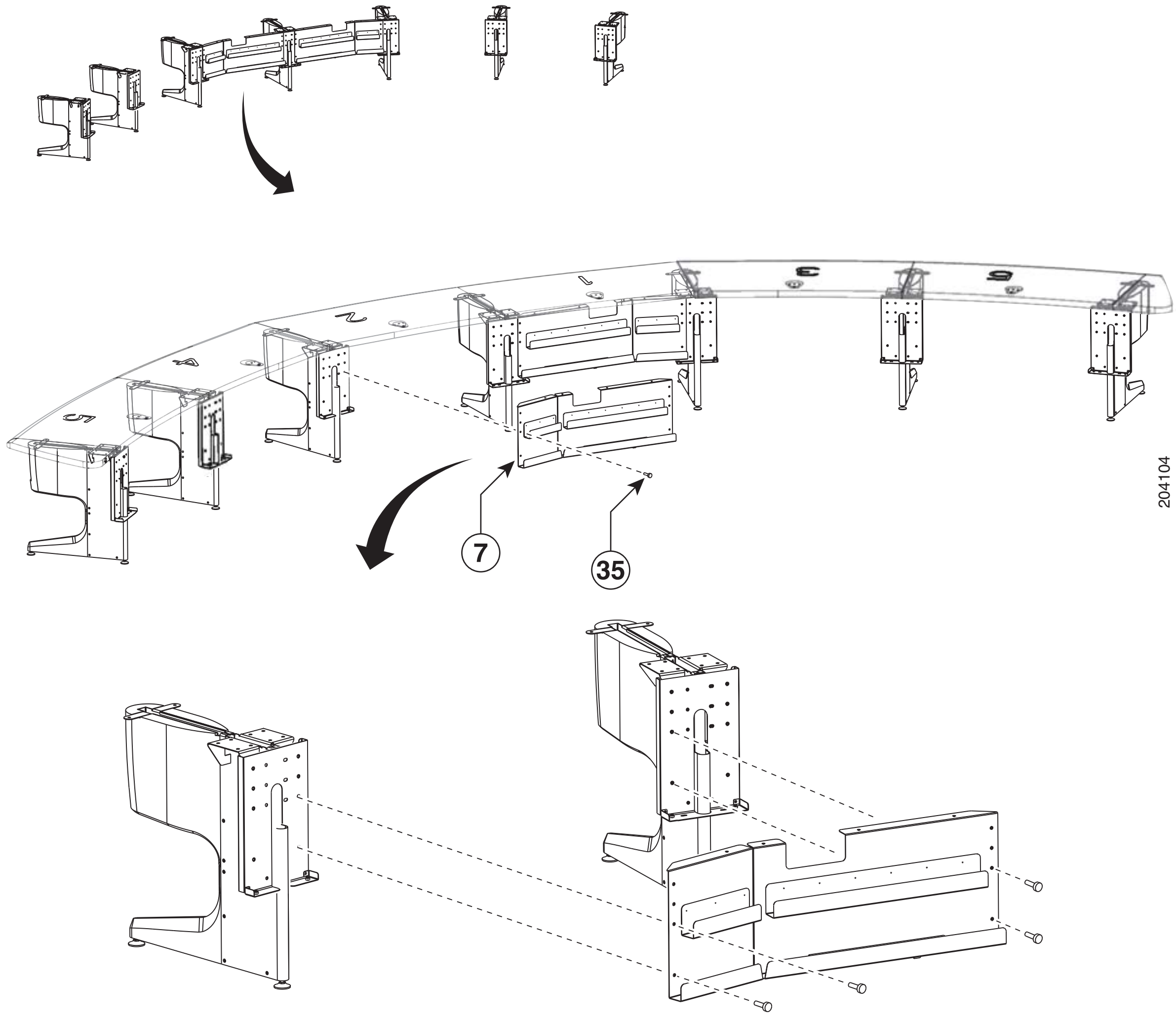
Step 5 While one or more assistants keep the table legs steady, attach the Section 1 gutter panel to the Section 1 table legs.

Figure 5-10 Section 1 Gutter Panel



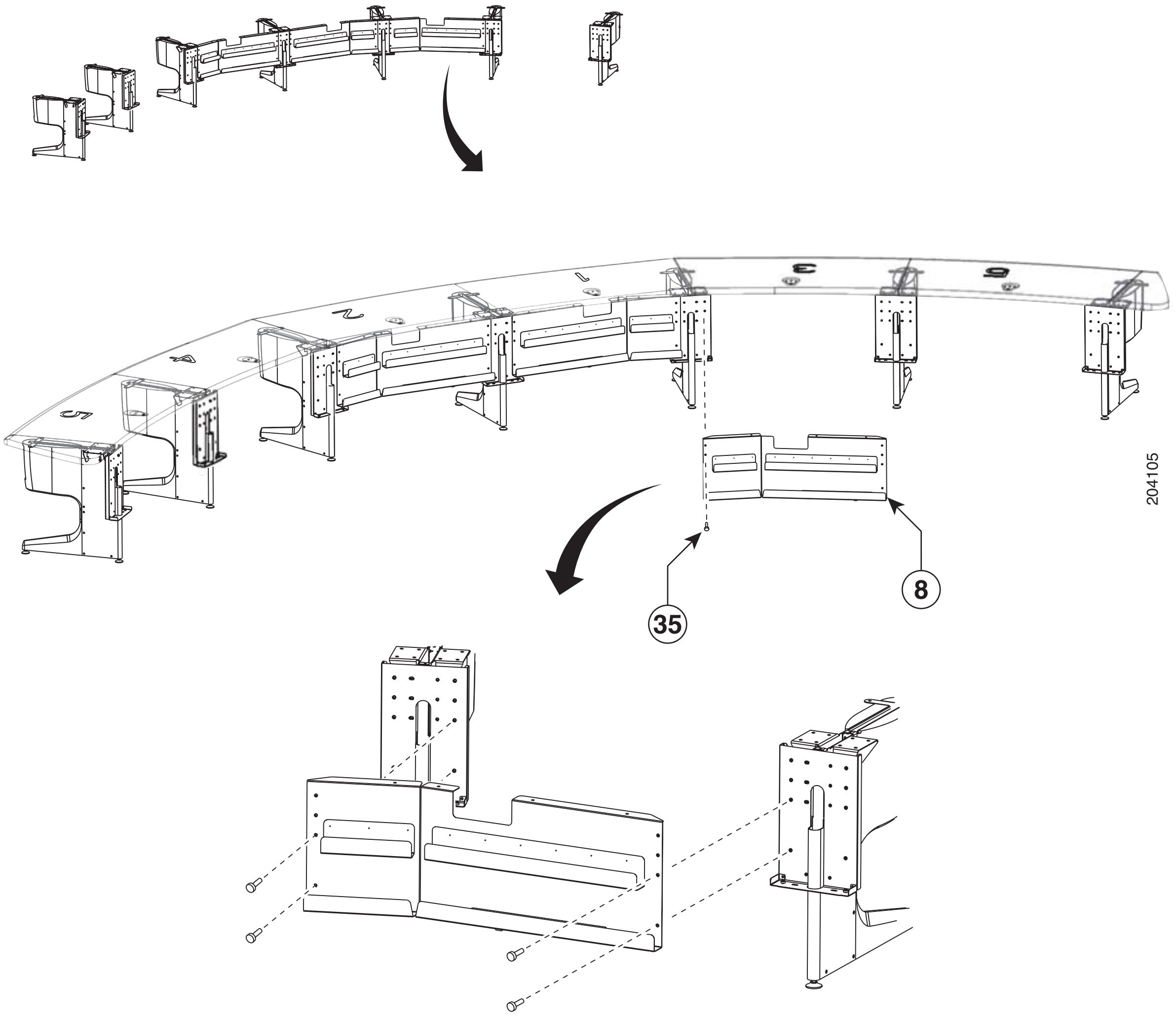
Step 6 Attach the Section 2 gutter panel to the Section 2 table legs.

Figure 5-11 Section 2 Gutter Panel



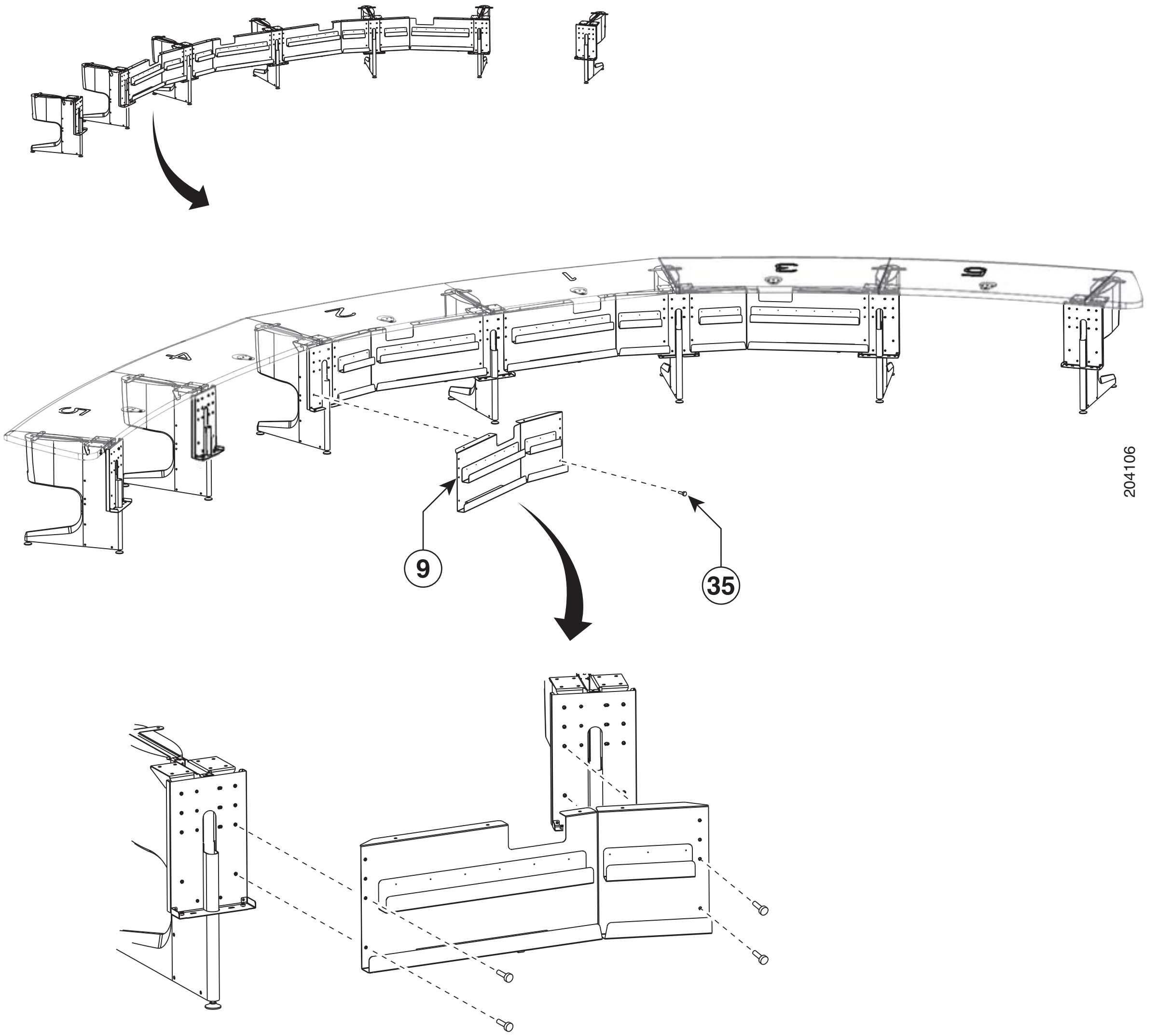
Step 7 Attach the Section 3 gutter panel to the Section 3 table legs.

Figure 5-12 Section 3 Gutter Panel



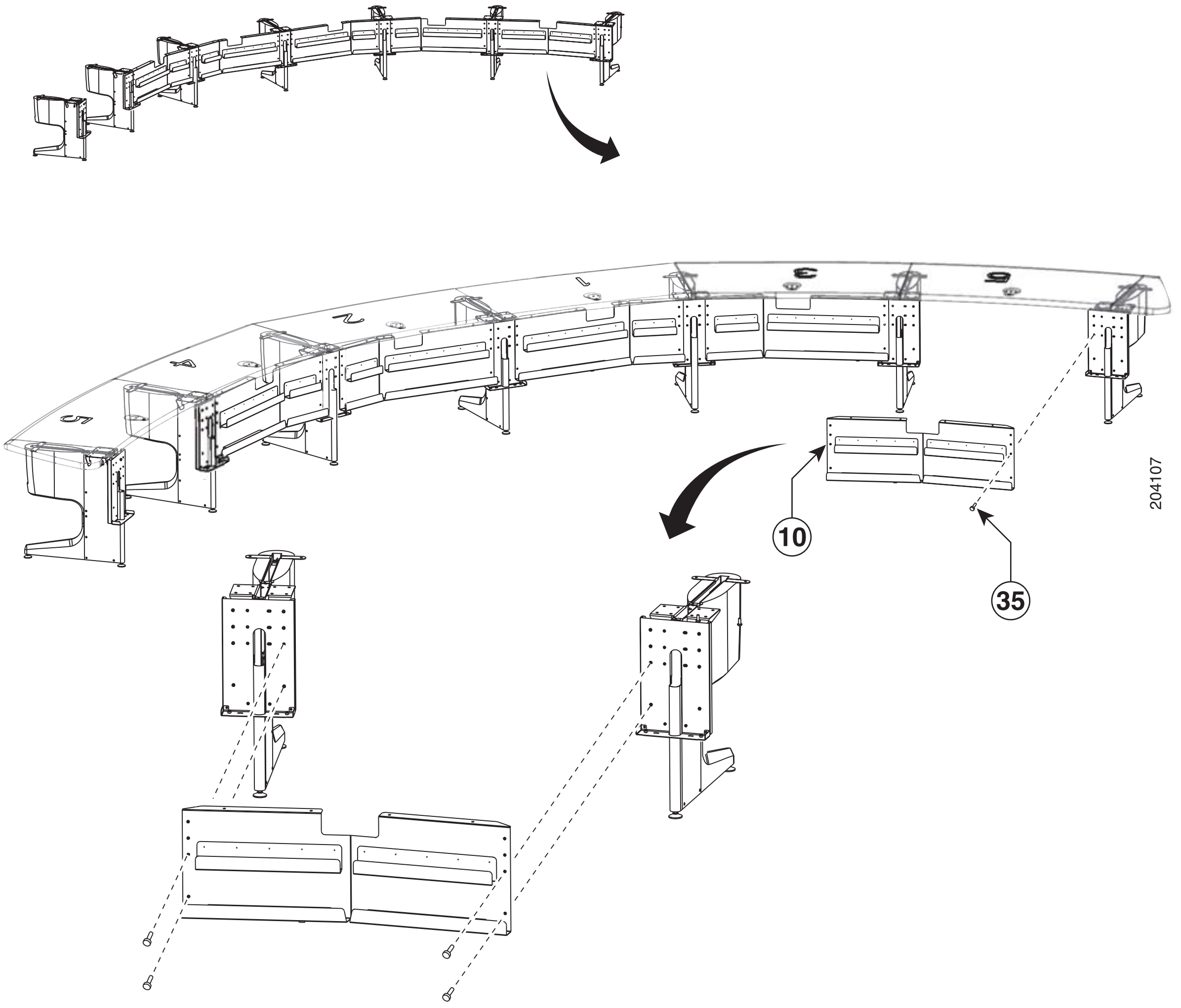
Step 8 Attach the Section 4 gutter panel to the Section 4 table legs.

Figure 5-13 Section 4 Gutter Panel



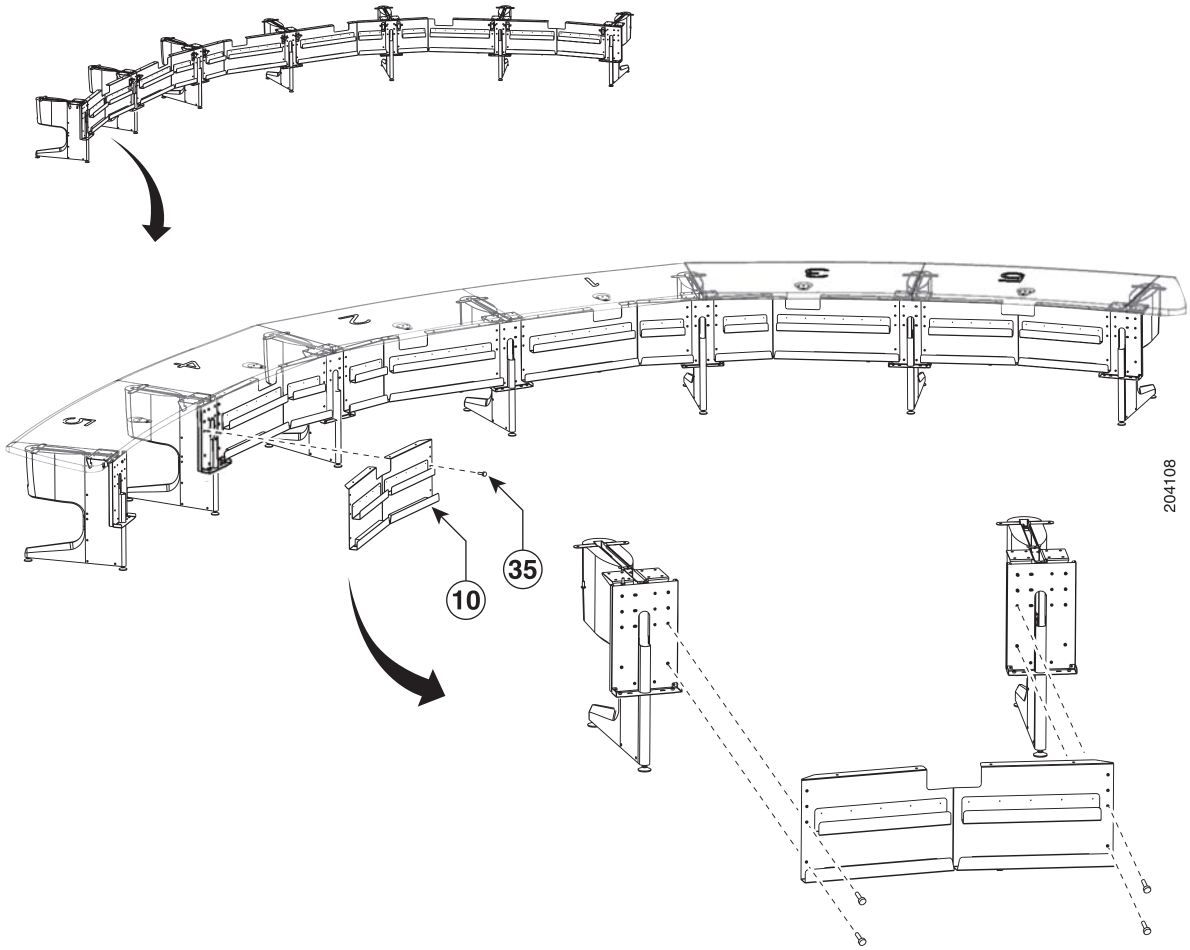
Step 9 Attach the left Section 5 gutter panels to the remaining table legs.

Figure 5-14 Section 5 (Left) Gutter Panels



Step 10 Attach the right Section 5 gutter panels to the remaining table legs.

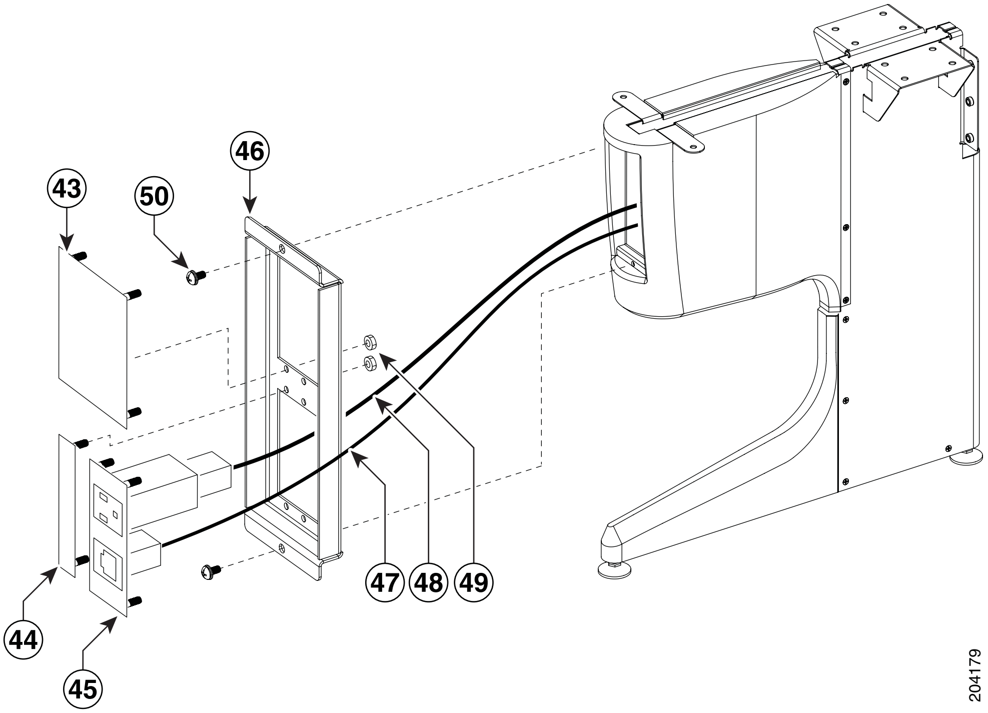
Figure 5-15 Section 5 (Right) Gutter Panels



Step 11 Assemble the I/O modules for the outside left and outside right molded foam bumpers.

The outside left and outside right molded foam bumpers only have one I/O module each. The inner molded foam bumpers have two (see Figure 5-17).

Figure 5-16 Foam Bumper Assembly



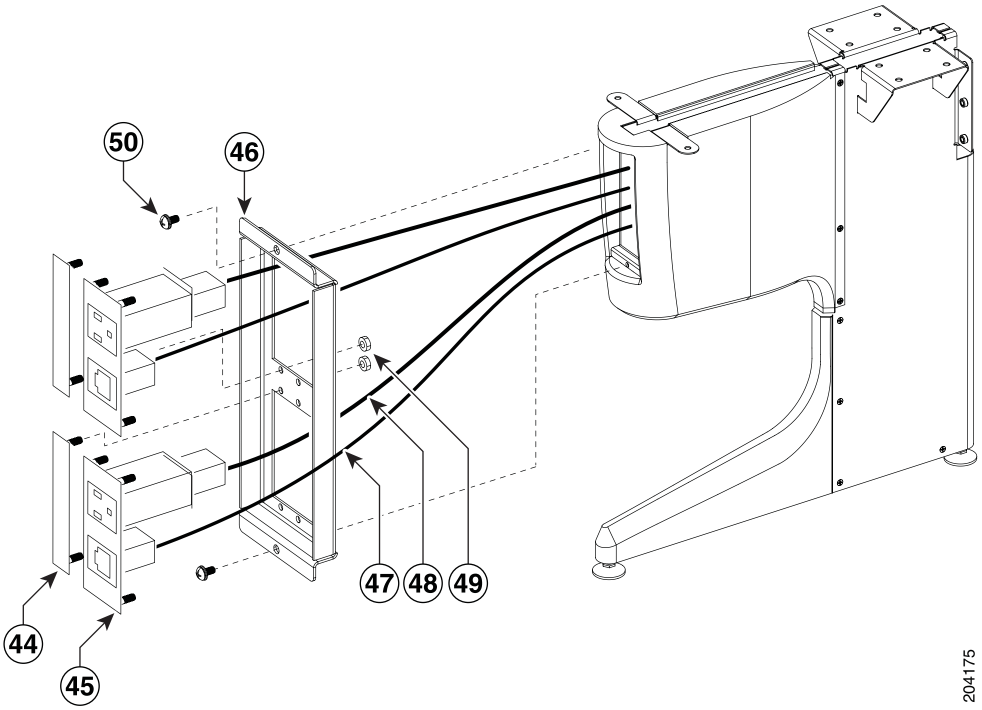
Note The Ethernet cables are of different lengths. Attach the Ethernet cables to the I/O modules as follows:

- Use the 12M cable, 37-0965-01, for the I/O modules between sections 6 and 5
- Use the 3M cable, 37-0887-02, for the I/O modules between sections 5 and 7

Note The flange on the I/O module cover piece is wider on the bottom than on the top.

Step 12 Assemble the I/O modules for the inner molded foam bumpers.

Figure 5-17 Foam Bumper Assembly



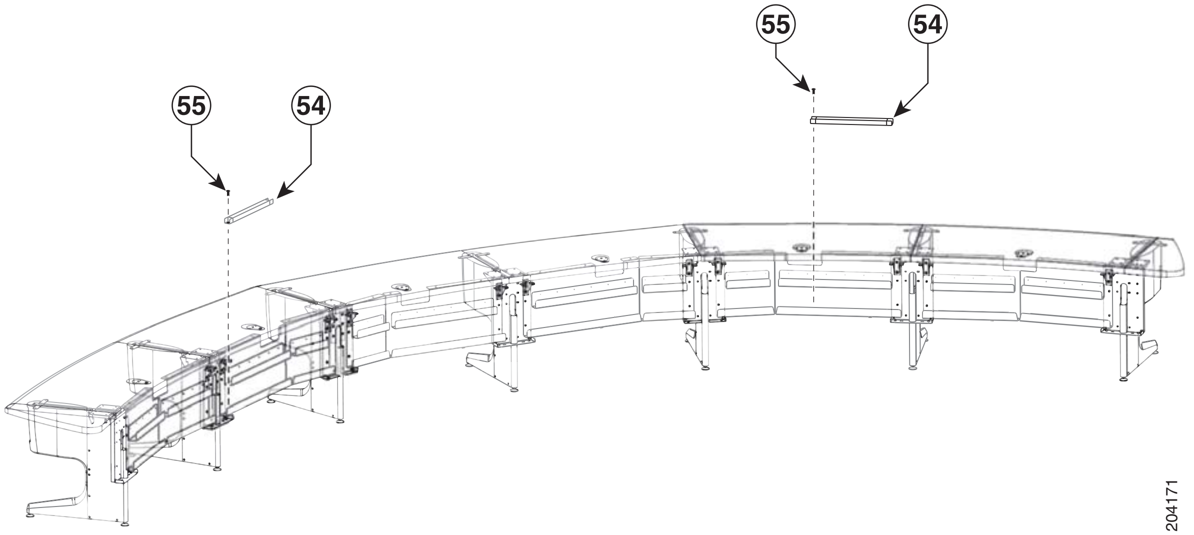
Note The Ethernet cables are of different lengths. Attach the Ethernet cables to the I/O modules as follows:

- Use the 12M cable, 37-0965-01, for the I/O modules between sections 5 and 3
- Use the 10M cables, 37-0901-01, for the I/O modules between sections 3 and 1, 1 and 2, 2 and 4, and 4 and 5

Note The flange on the I/O module cover piece is wider on the bottom than on the top.

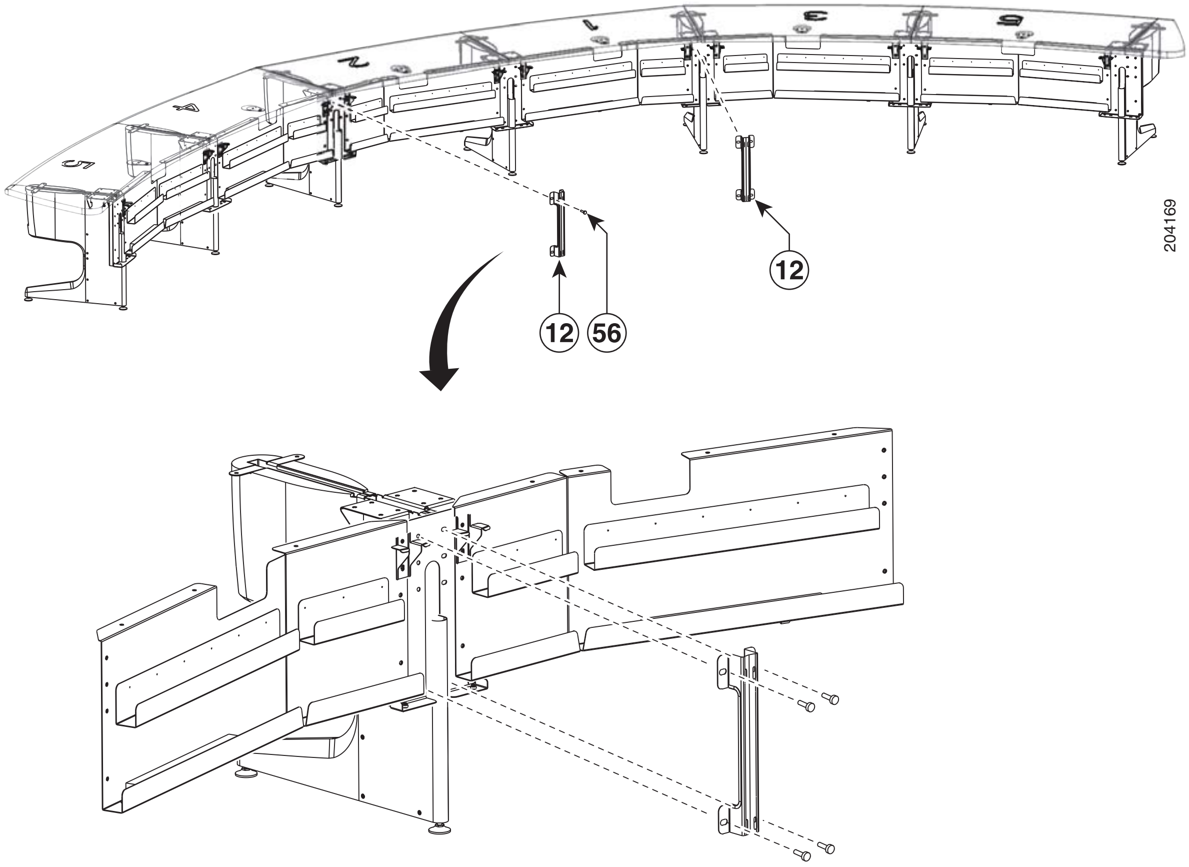
Step 13 Insert the second row PDUs in the lower cable gutters.

Figure 5-18 PDU Cable Routing



Step 14 Attach the first set of floating brackets to the table assembly.

Figure 5-19 Floating Brackets, Type 1

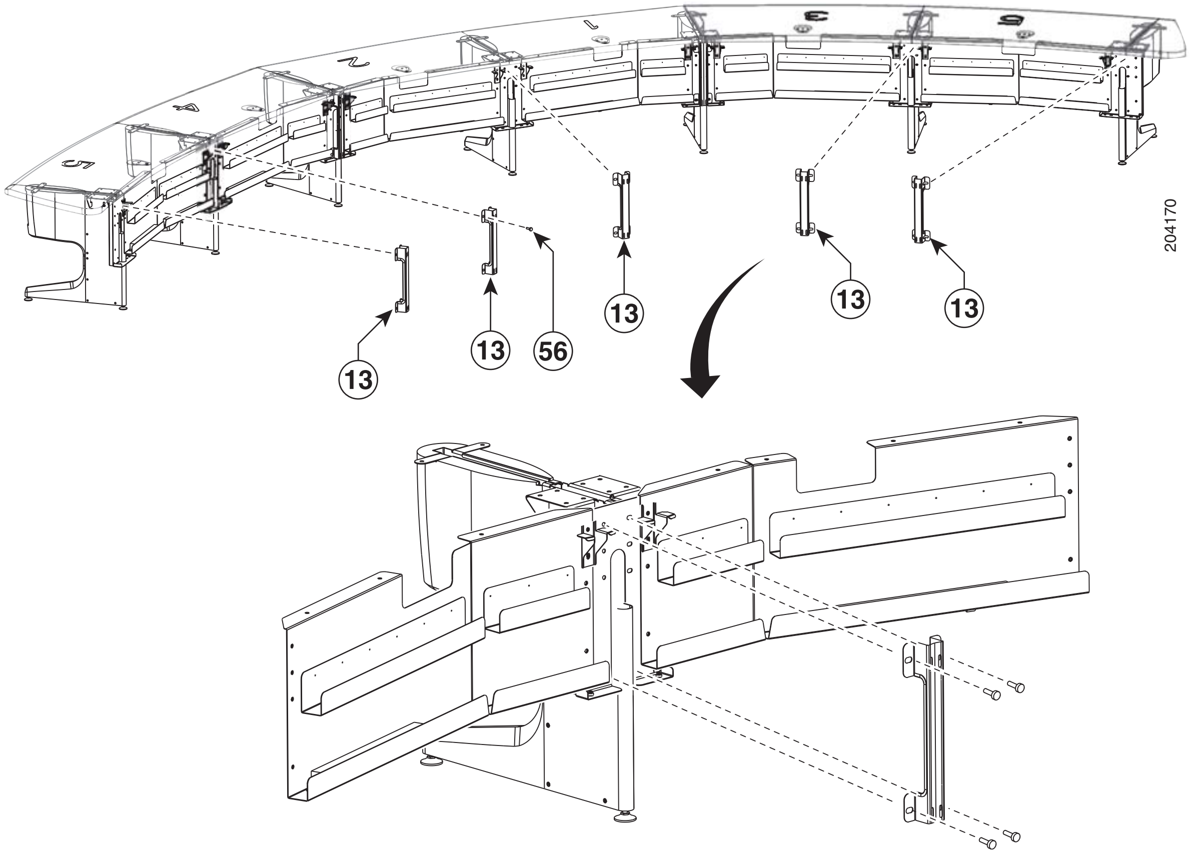


Note Before you attach the floating brackets, route the Ethernet and power cables through the right side of the second row table assembly. See Figure 5-54 for more information.

Note After you attach the brackets with the shoulder screws, move the brackets left and right to ensure that they can move freely.

Step 15 Attach the second set of floating brackets to the table assembly.

Figure 5-20 Floating Brackets, Type 2

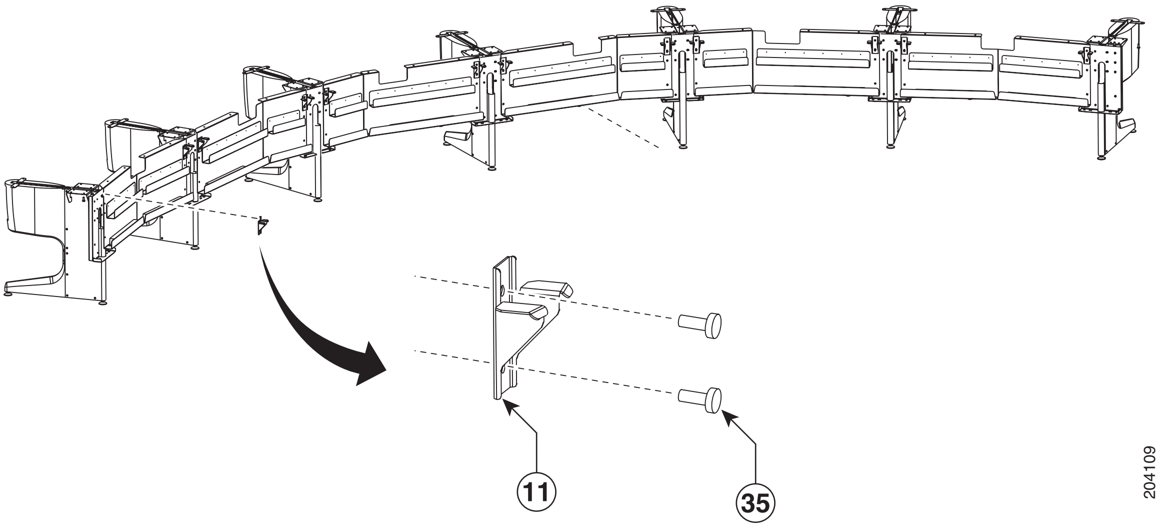


Note Before you attach the floating brackets, route the power cables. See Figure 5-55 for more information

Note After you attach the brackets with the shoulder screws, move the brackets left and right to ensure that they can move freely.

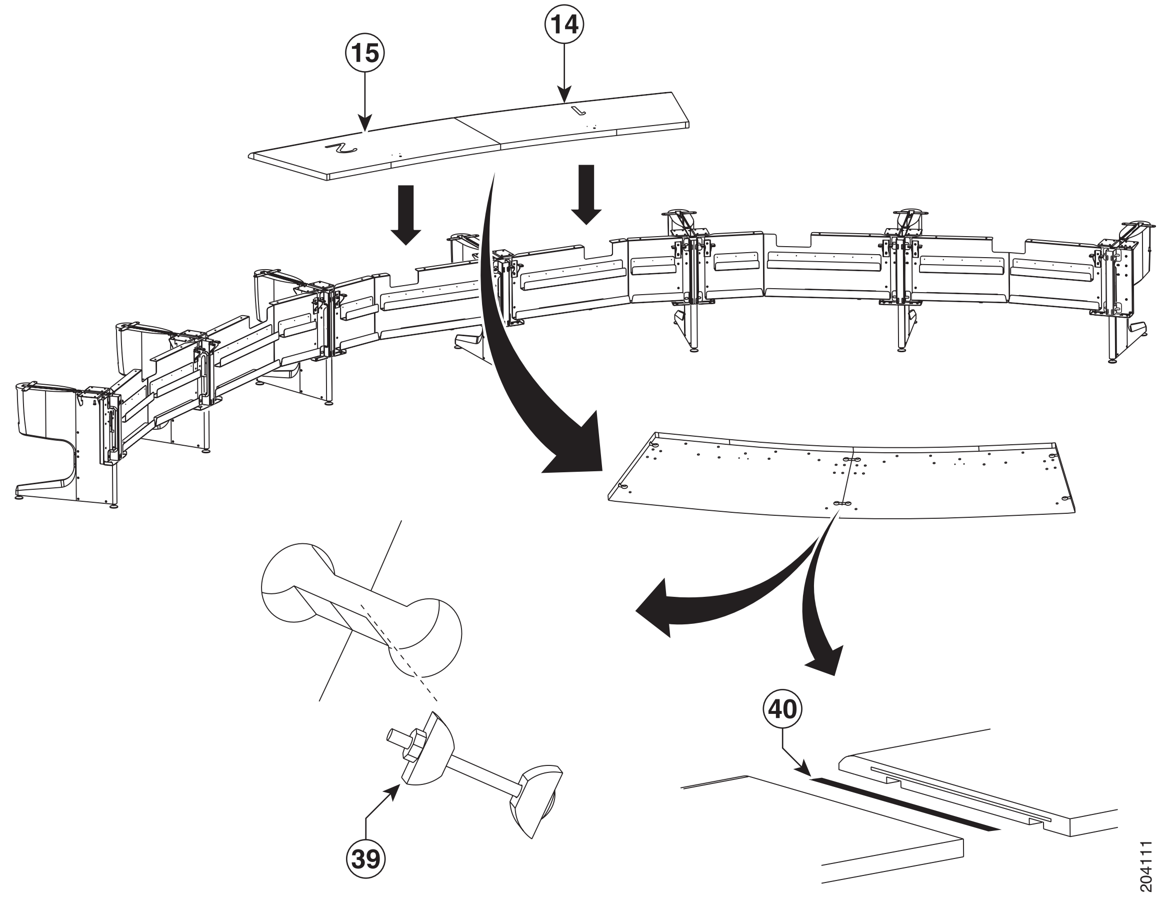
Step 16 Attach the privacy panel hangers to the table assembly.

Figure 5-21 Privacy Panel Hanger Brackets



Step 17 Place the section 1 and section 2 tabletops on the table assembly, insert the plastic spline in the slot of table section 1, and join the tables together, then insert and tighten the draw bolts evenly on each side until the tabletop sections are joined together.

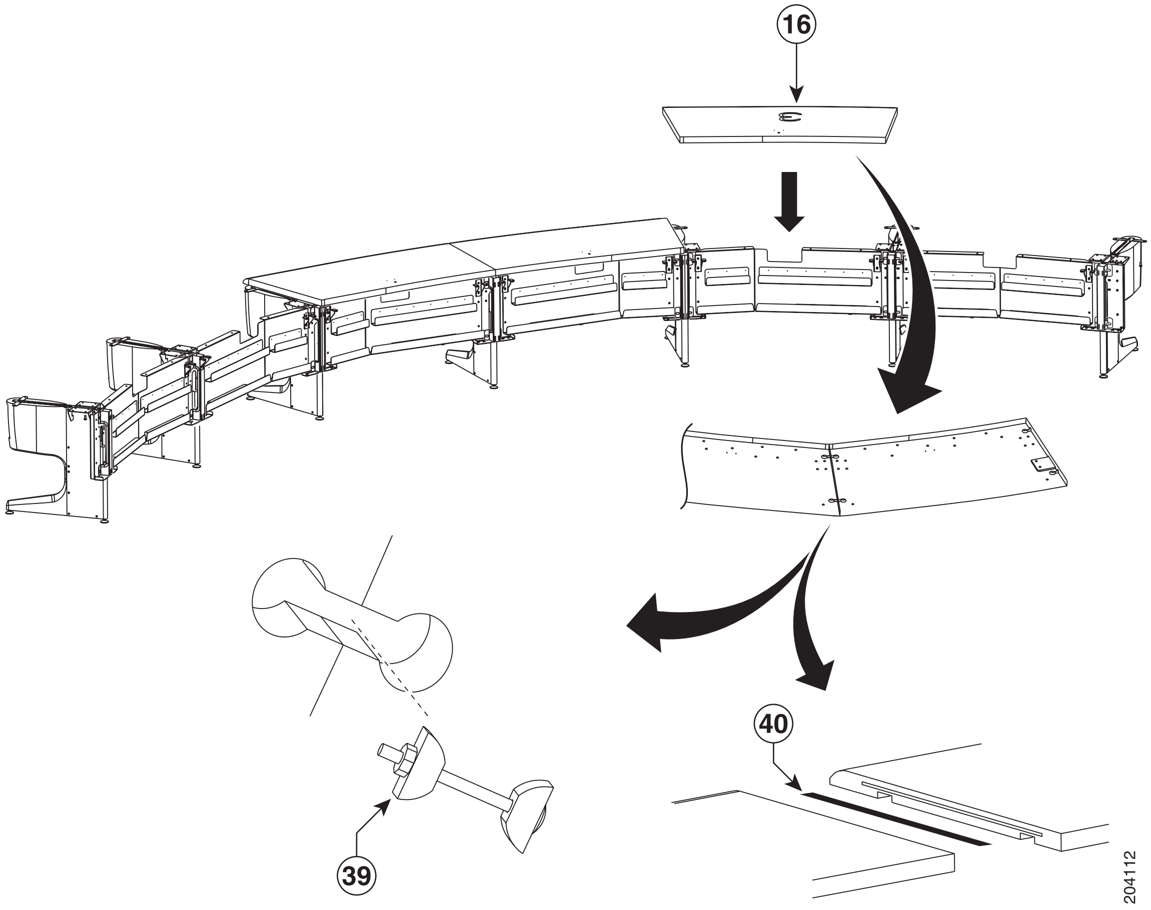
Figure 5-22 Tabletop Sections 1 and 2, Spline And Draw Bolts



Note As you build the table tops, attempt to align the table feet with the table tops, and make sure that they table tops are supported on at least three sides.

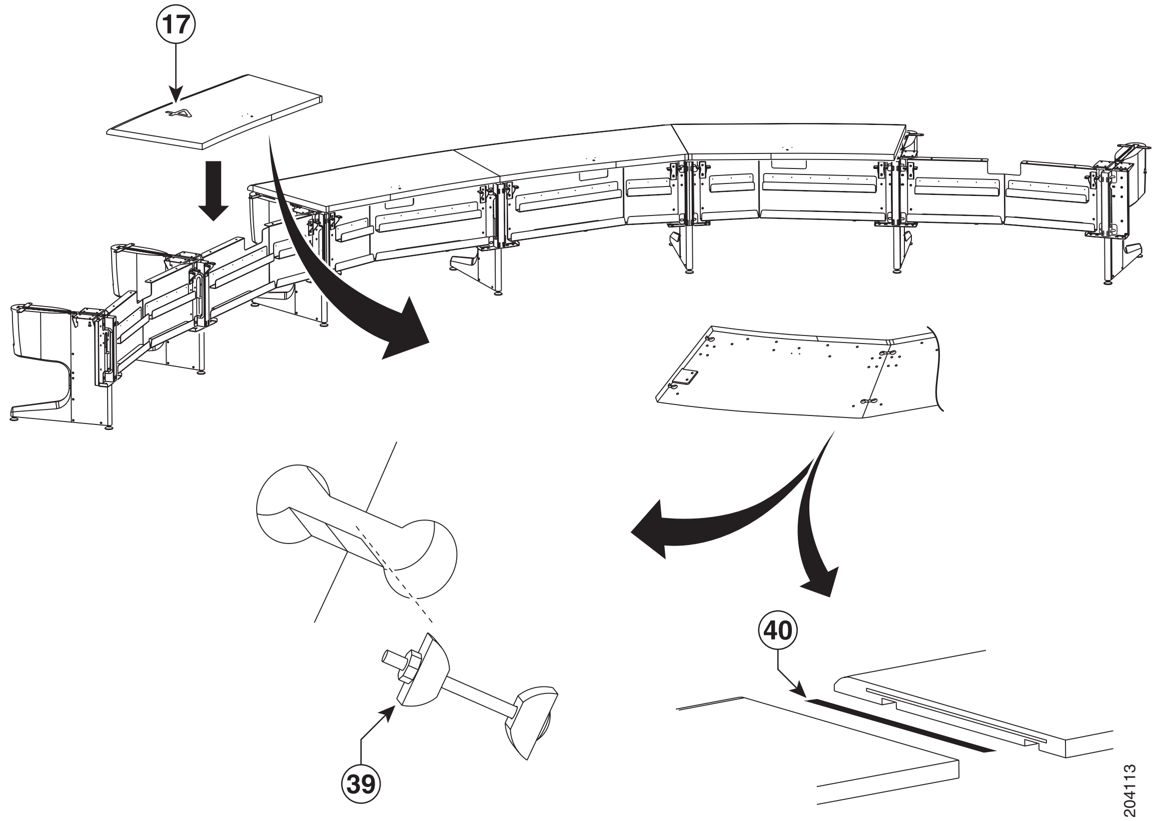
Step 18 Place the Section 3 tabletop on the table assembly, insert the spline in the slot between the two tabletops, and use the draw bolts to join table tops 1 and 3 together.

Figure 5-23 Tabletop Section 3



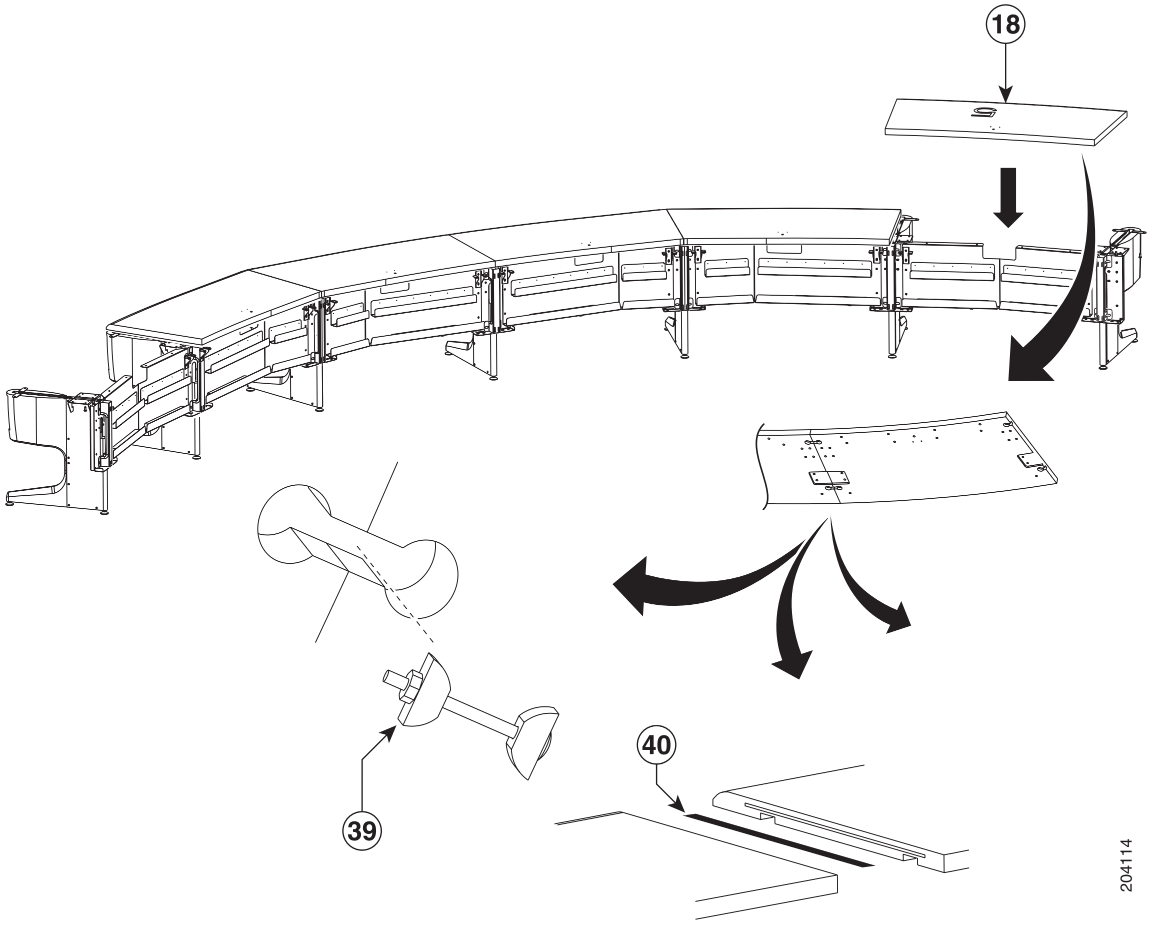
Step 19 Join table section 4 to table section 2 using the draw bolts and spline.

Figure 5-24 Tabletop Section 4



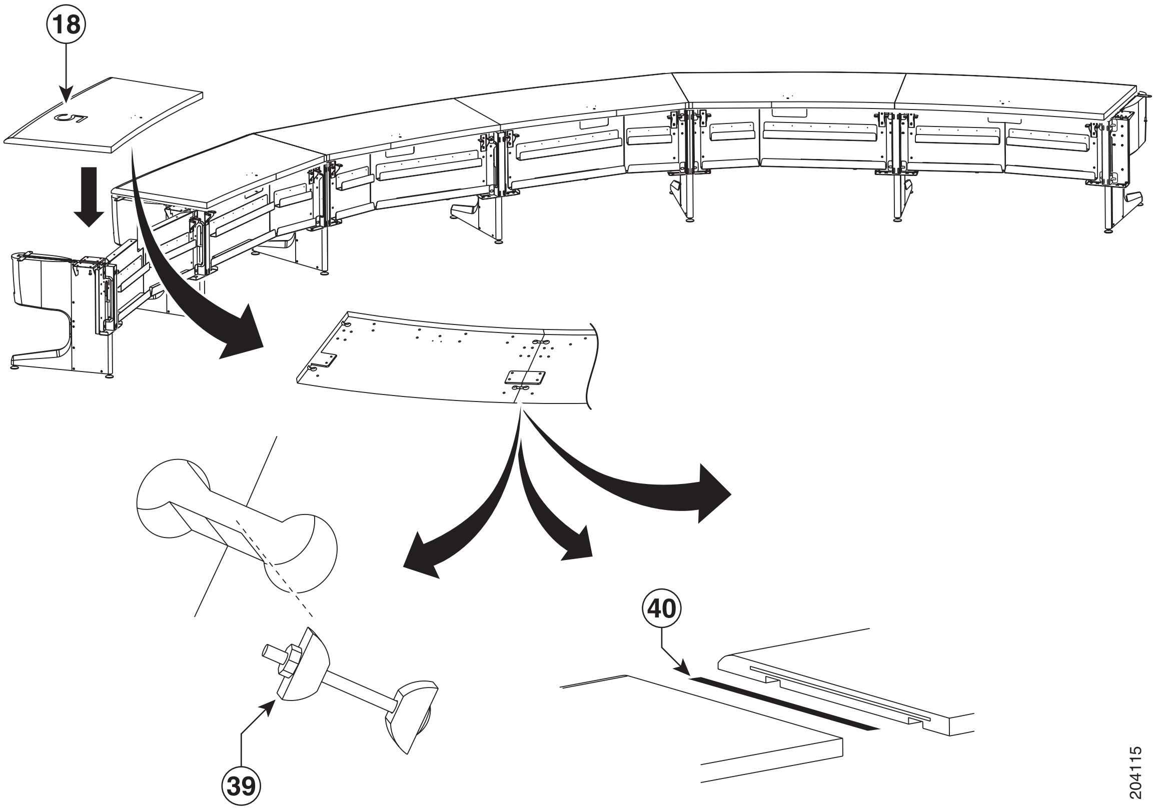
Step 20 Place the left tabletop section 5 on the table assembly and join it to the section 3 tabletop using the draw bolts and spline.

Figure 5-25 Tabletop Section 5 (Left)



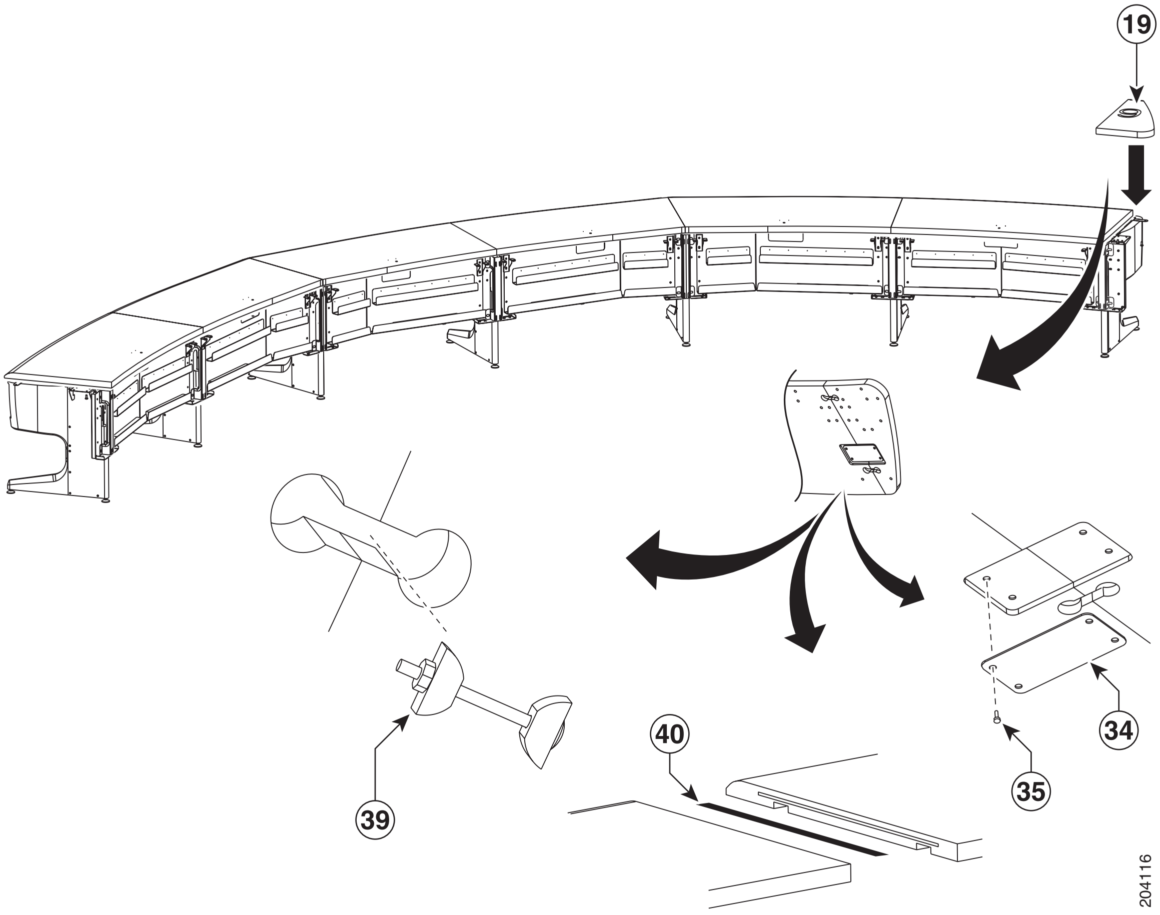
Step 21 Place the right tabletop section 5 on the table assembly and join it to the section 4 tabletop.

Figure 5-26 Tabletop Section 5 (Right)



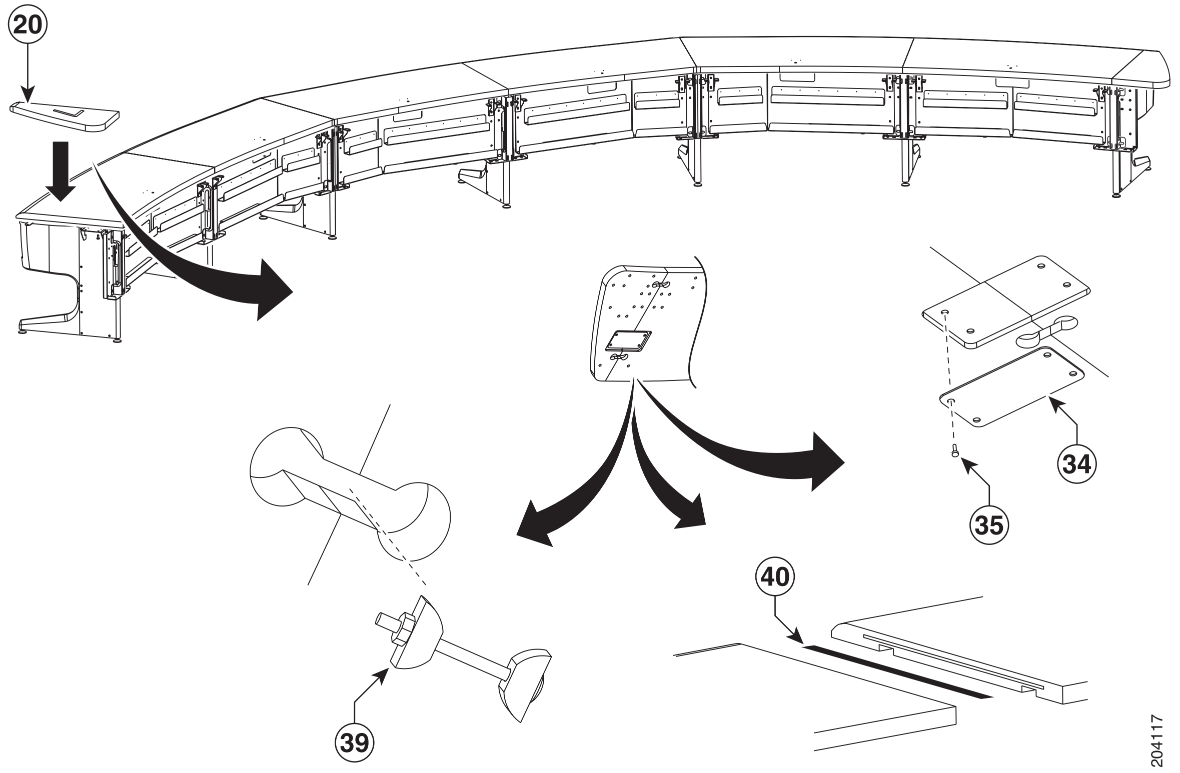
Step 22 Attach the left tabletop end to tabletop section 5 using the using the draw bolts, spline and alignment plate.

Figure 5-27 Left Tabletop End, Draw Bolts, Spline and Alignment Plate



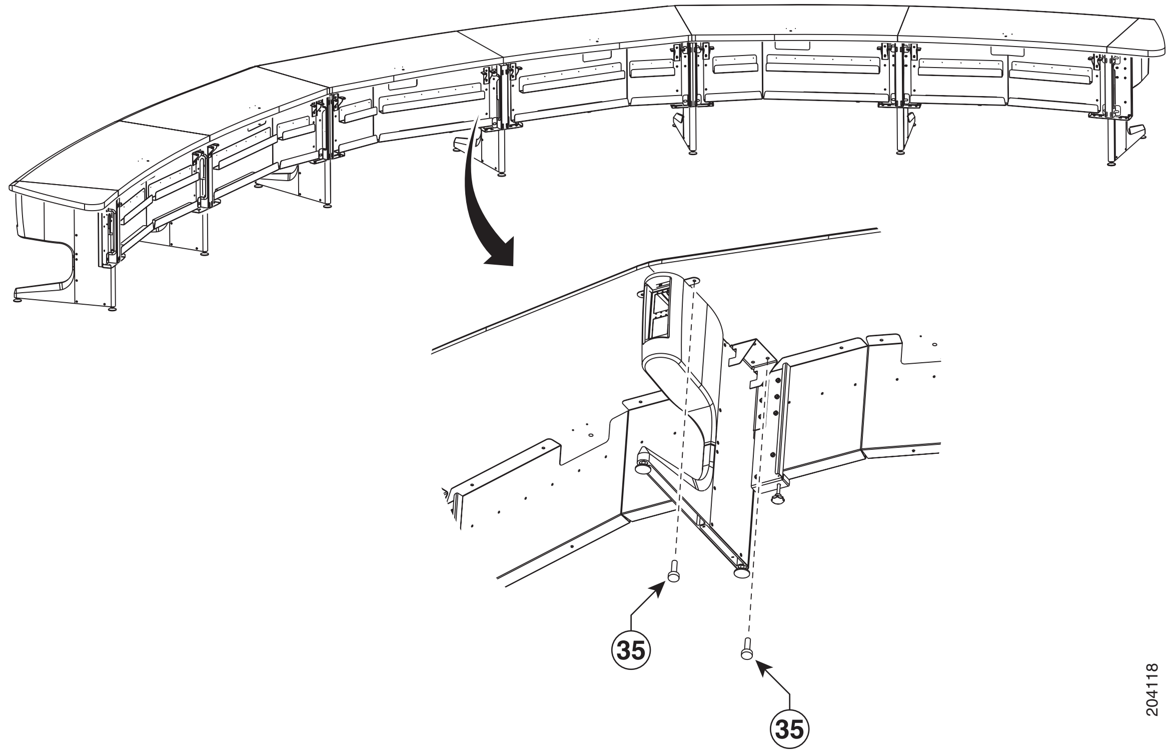
Step 23 Attach the Right tabletop end.

Figure 5-28 Right Tabletop End



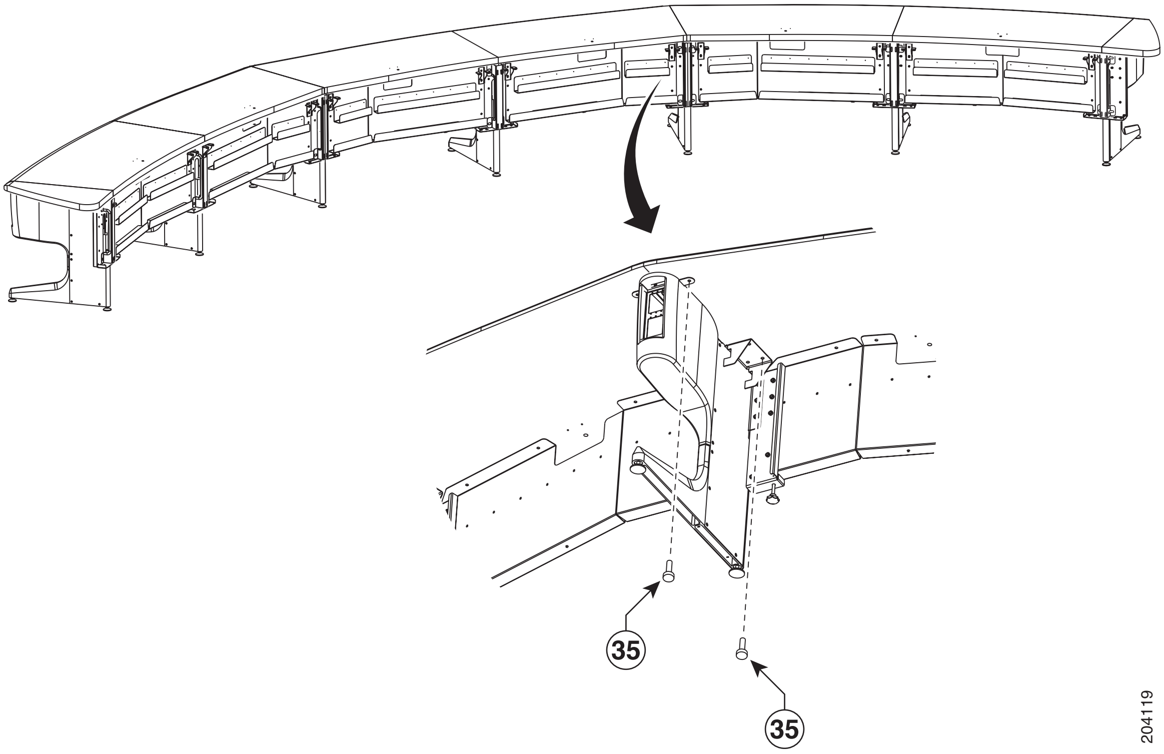
Step 24 Attach tabletop sections 1 and 2 to the table leg.

Figure 5-29 Tabletop Sections 1 and 2 and Table Leg



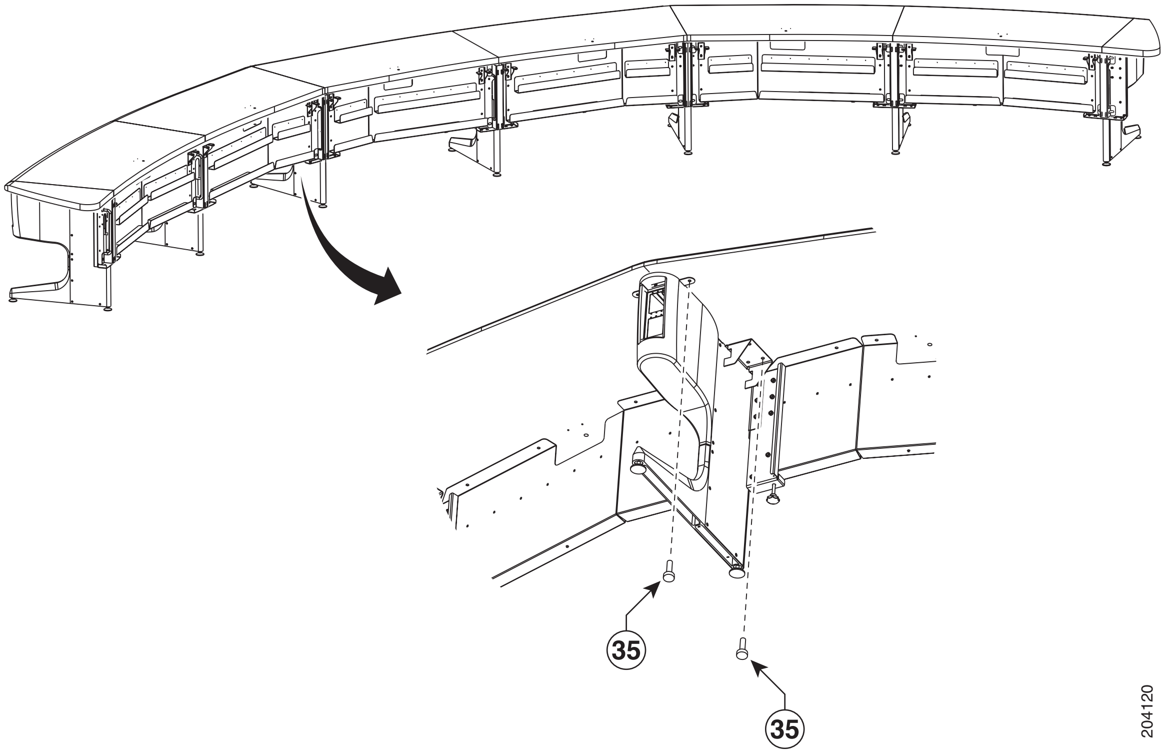
Step 25 Attach tabletop sections 1 and 3 to the table leg.

Figure 5-30 Tabletop Sections 1 and 3 and Table Leg



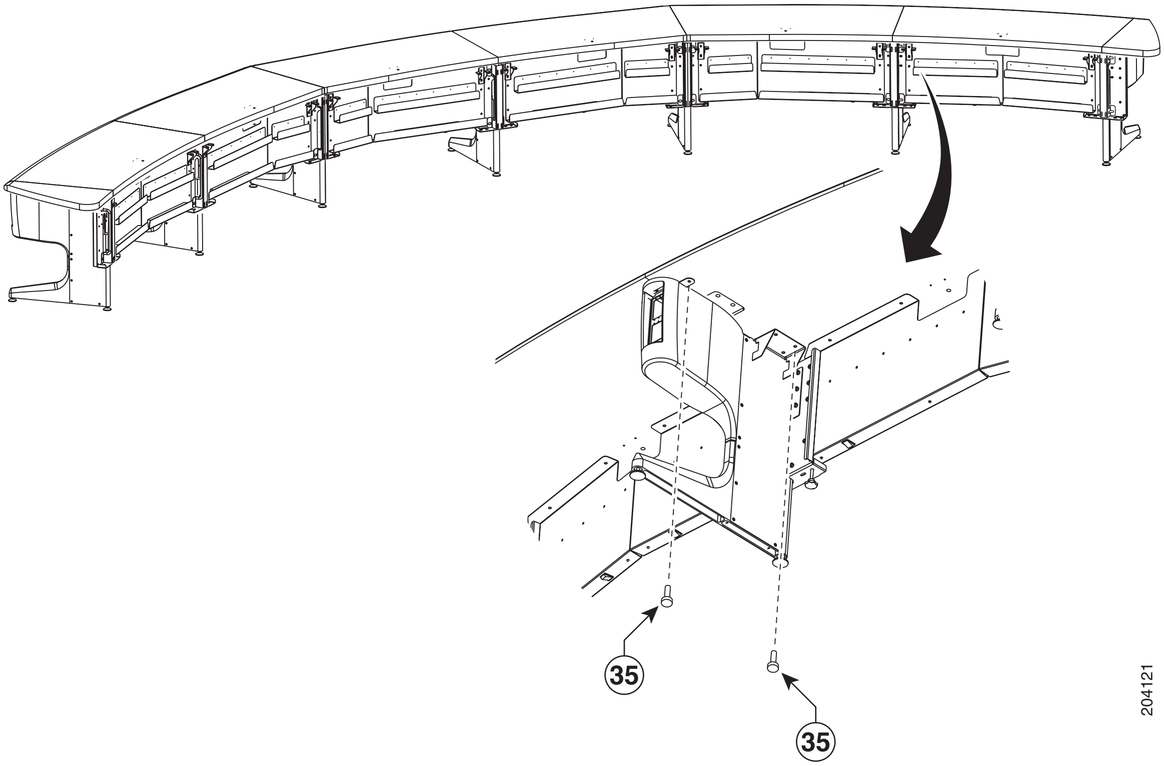
Step 26 Attach tabletop sections 2 and 4 to the table leg.

Figure 5-31 Tabletop Sections 2 and 4 and Table Leg



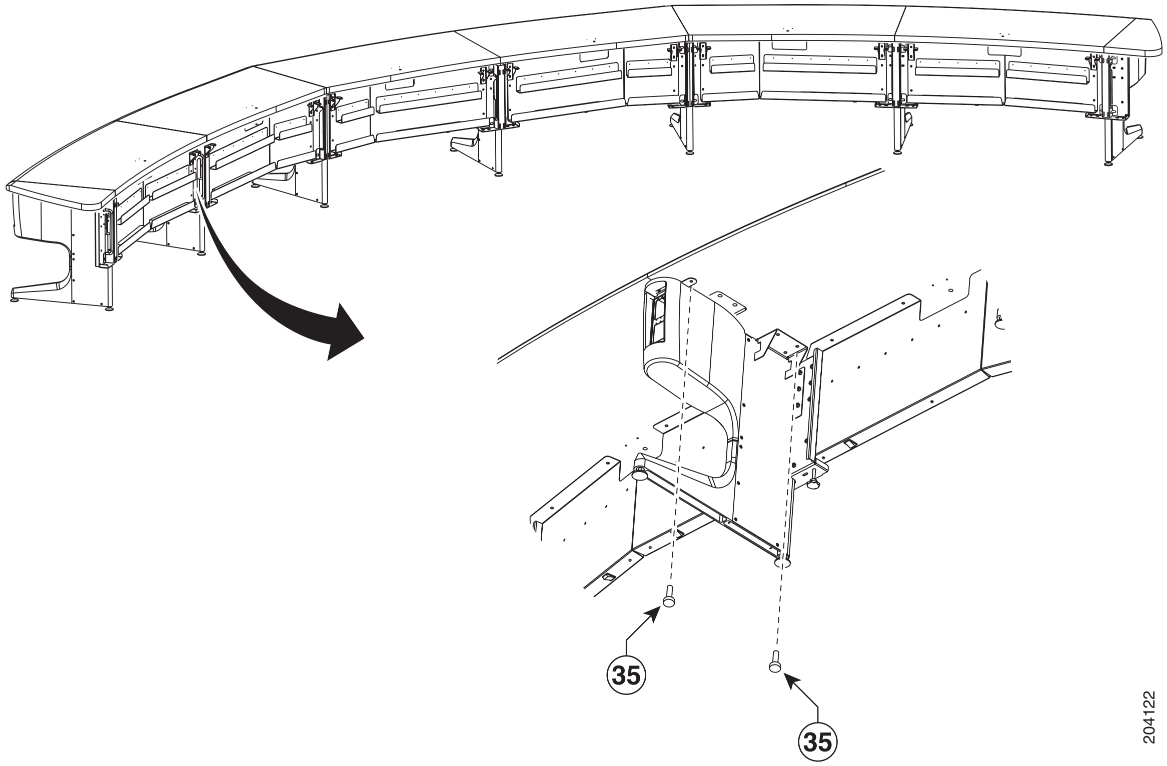
Step 27 Attach tabletop sections 3 and 5 to the table leg.

Figure 5-32 Tabletop Sections 3 and 5 and Table Leg



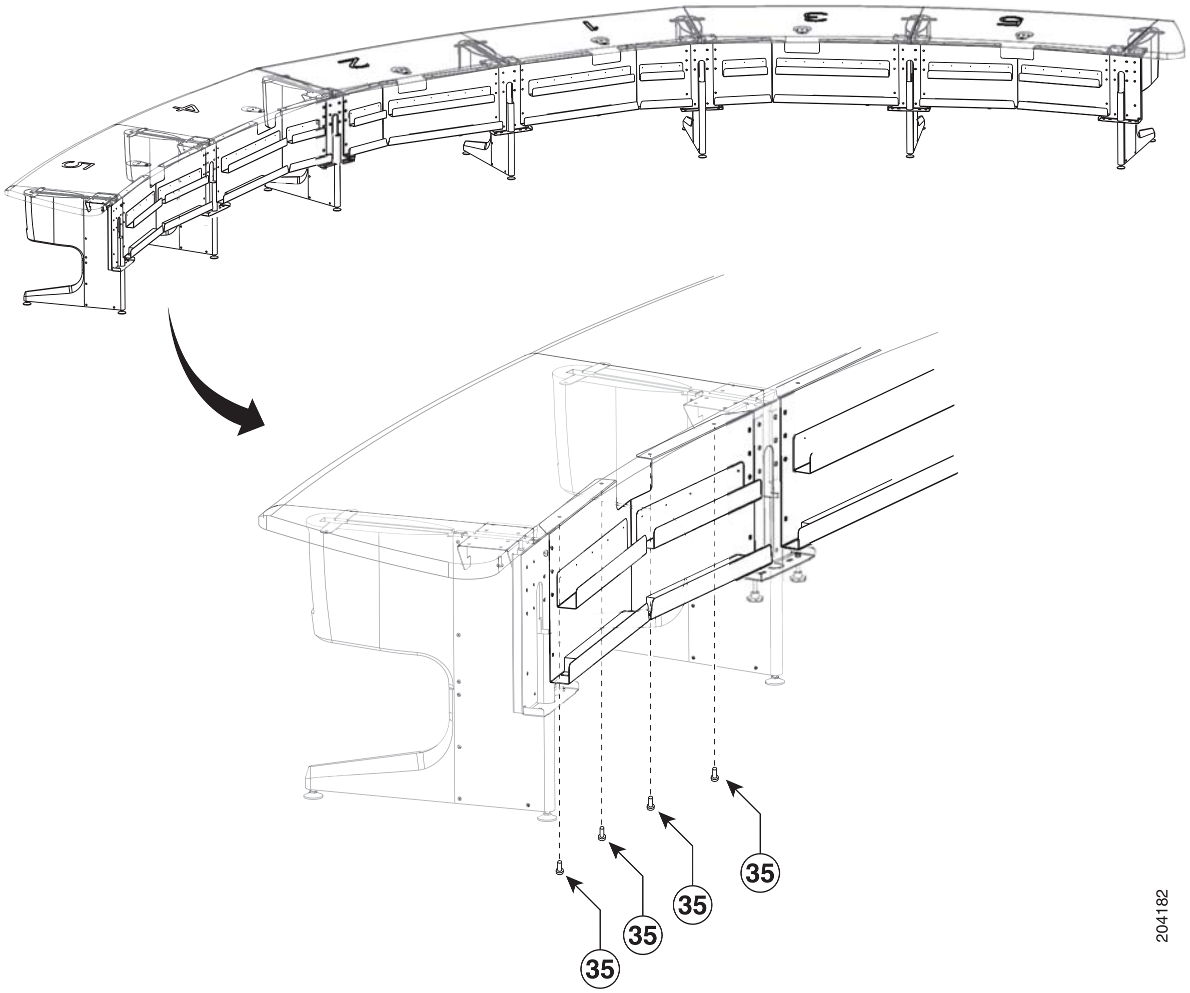
Step 28 Attach tabletop sections 4 and 5 to the table leg.

Figure 5-33 Tabletop Sections 4 and 5 and Table Leg



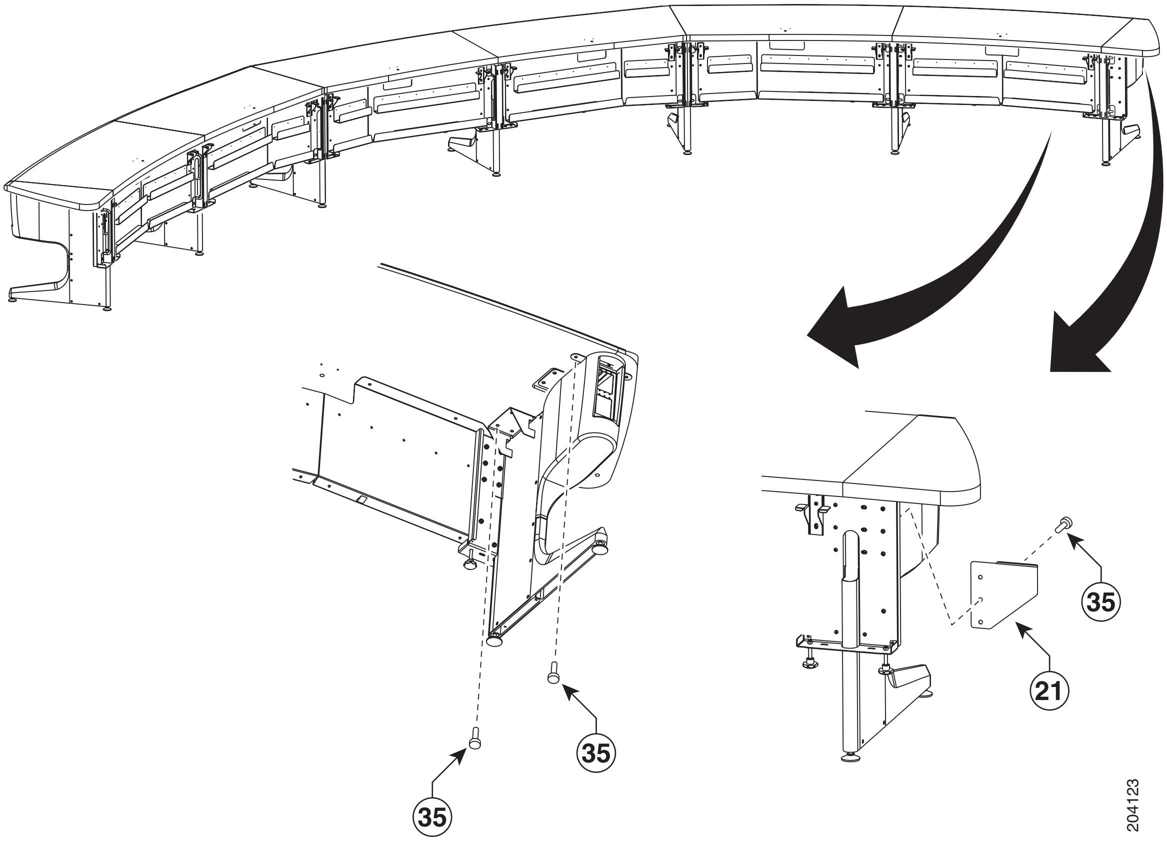
Step 29 Attach the reinforcement screws for the gutter panels.

Figure 5-34 Gutter Panel Reinforcement Screws



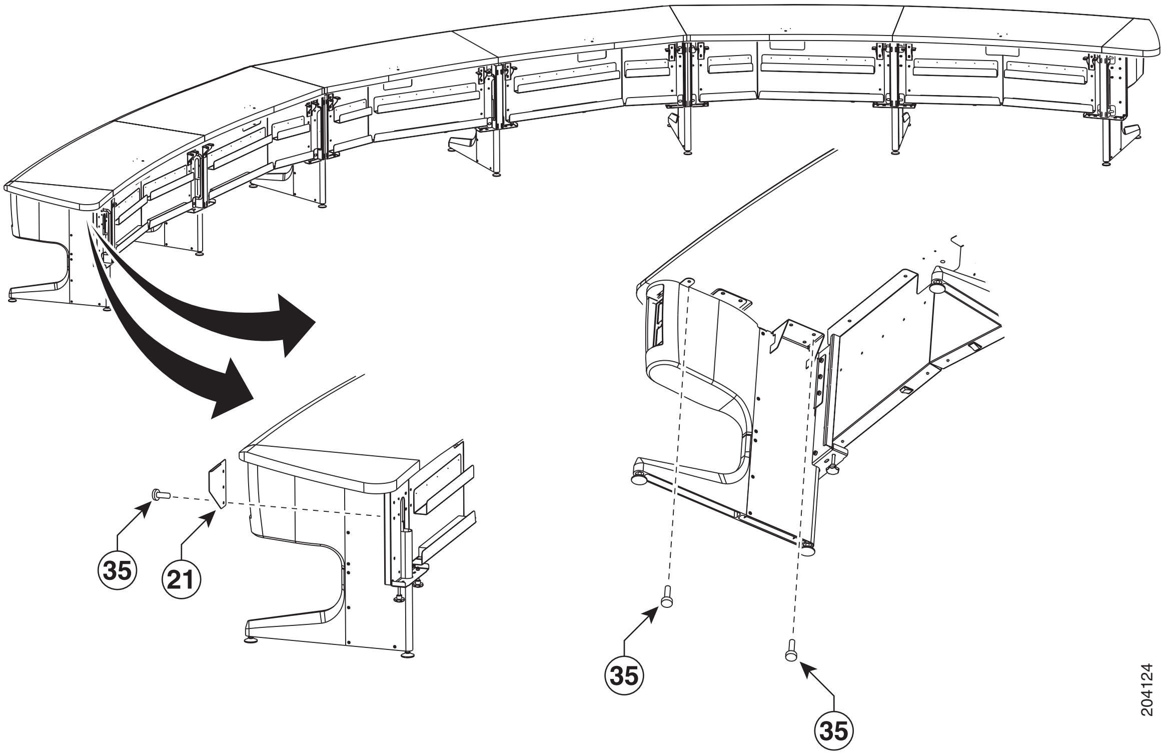
Step 30 Attach the panel end brace to the table leg and left tabletop end and attach the table leg to the tabletop and tabletop end.

Figure 5-35 Tabletop End Braces, Table Leg, Left Tabletop End and Table Section 5



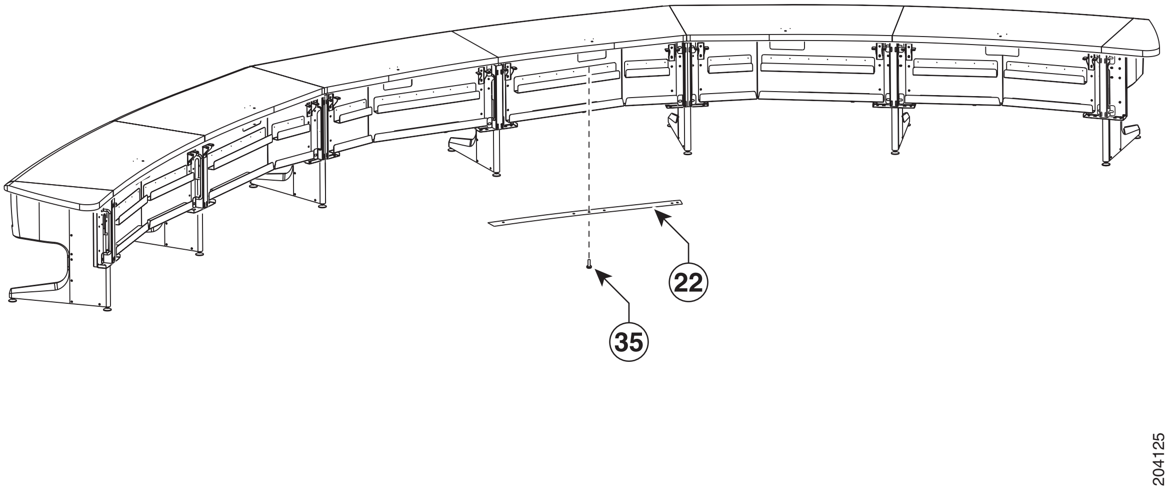
Step 31 Attach the panel end brace to the table leg and right tabletop end, then attach the table leg to the tabletop and tabletop end.

Figure 5-36 Panel End Braces, Table Leg, Right Tabletop End and Table Section 5



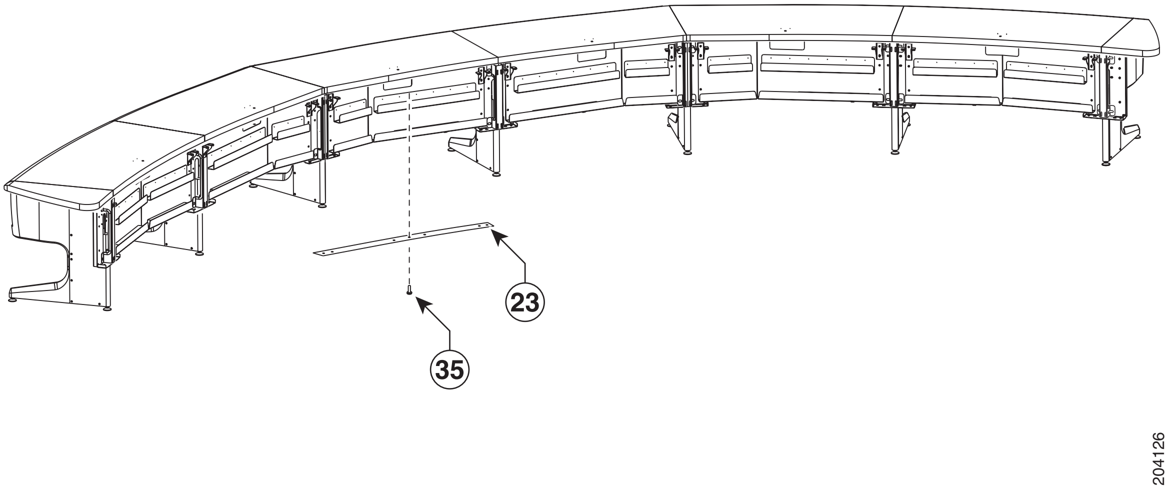
Step 32 Attach the privacy panel support bracket to the underside of table section 1.

Figure 5-37 Section 1 Privacy Panel Support Bracket



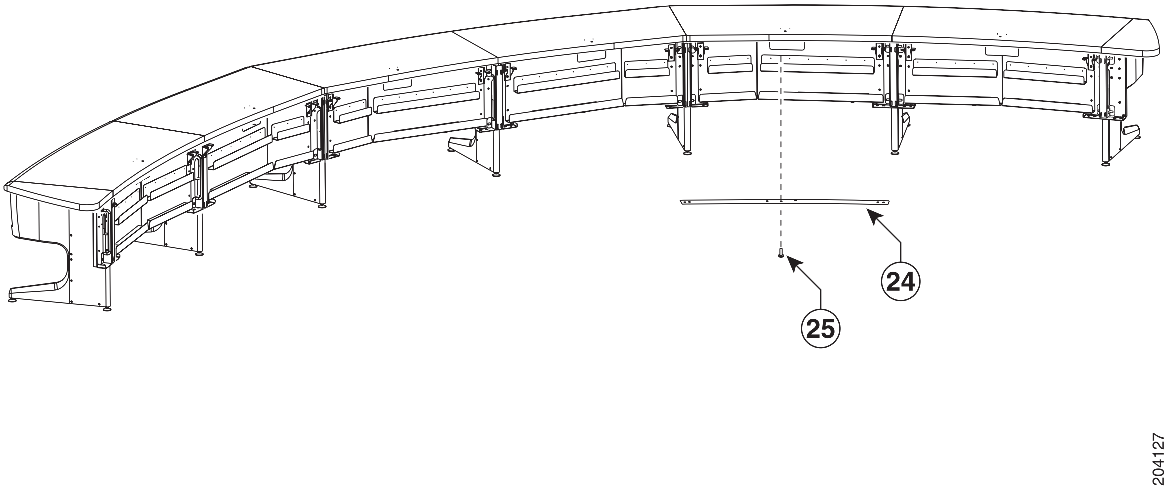
Step 33 Attach the privacy panel support bracket to the underside of table section 2.

Figure 5-38 Section 2 Privacy Panel Support Bracket



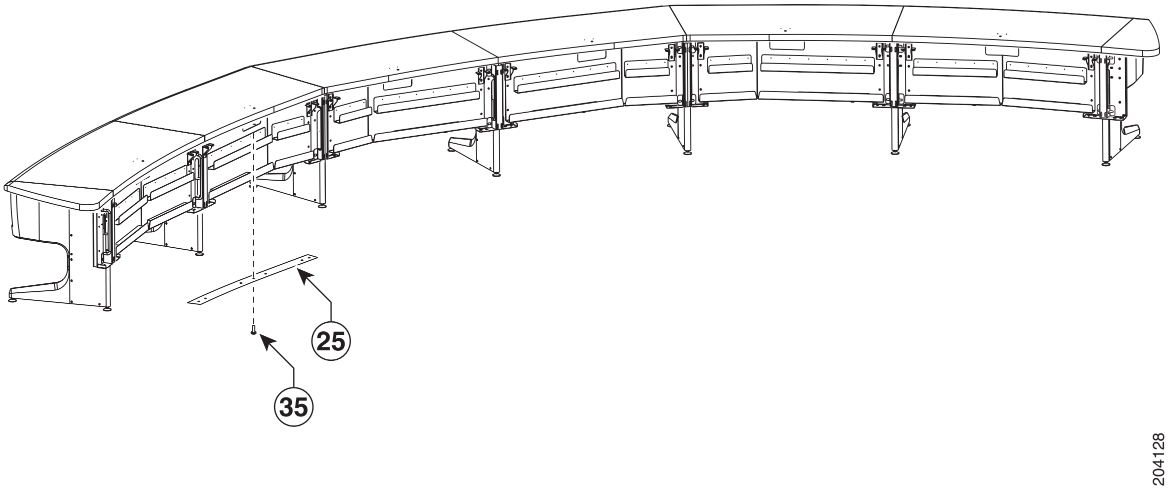
Step 34 Attach the privacy panel support bracket to the underside of table section 3.

Figure 5-39 Section 3 Privacy Panel Support Bracket



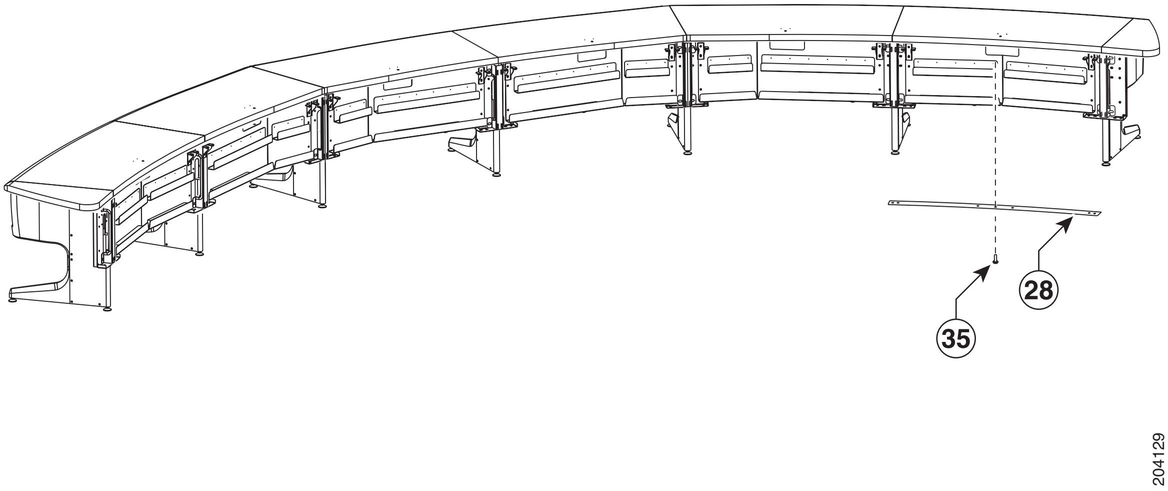
Step 35 Attach the privacy panel support bracket to the underside of table section 4.

Figure 5-40 Section 4 Privacy Panel Support Bracket



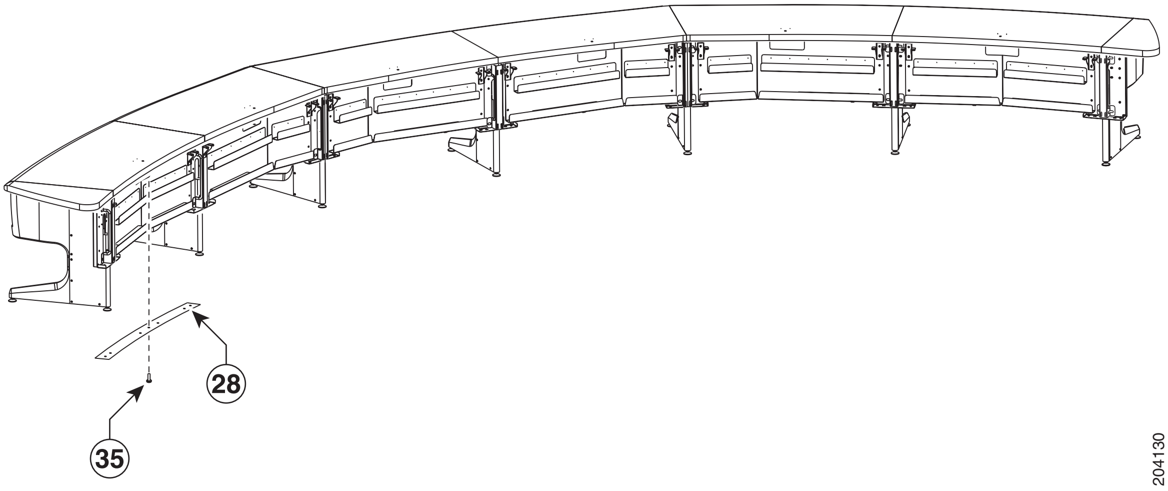
Step 36 Attach the privacy panel support bracket to the underside of left table section 5.

Figure 5-41 Left Section 5 Privacy Panel Support Bracket



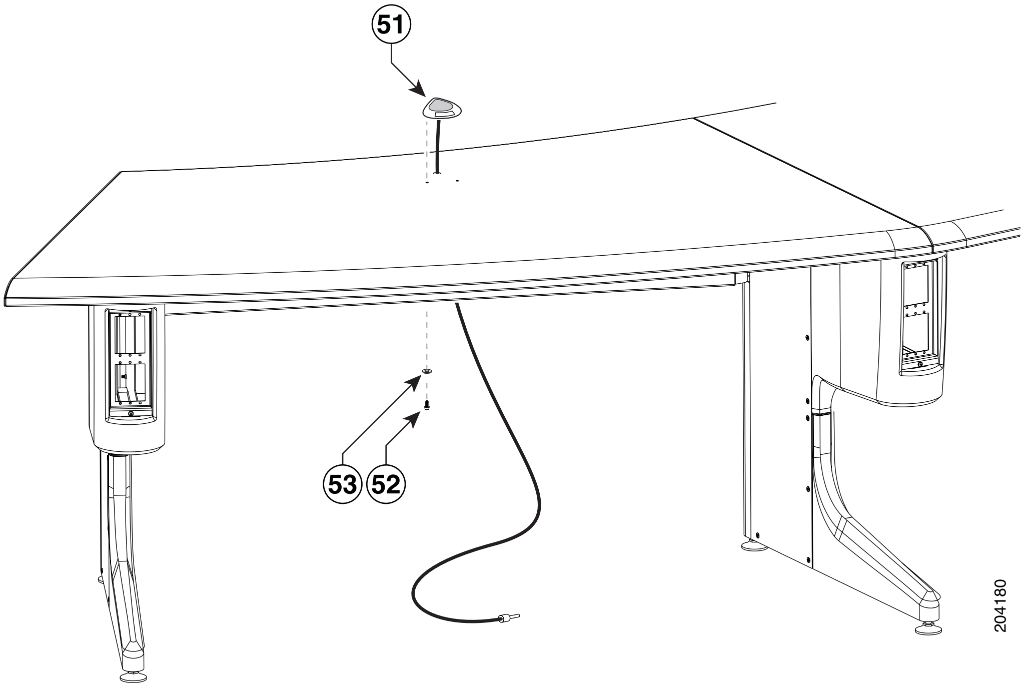
Step 37 Attach the privacy panel support bracket to the underside of right table section 5.

Figure 5-42 Right Section 5 Privacy Panel Support Bracket



Step 38 Attach one microphone to each table segment and attach the microphone extension cords to the microphone cables. There are six microphones for the second row table.

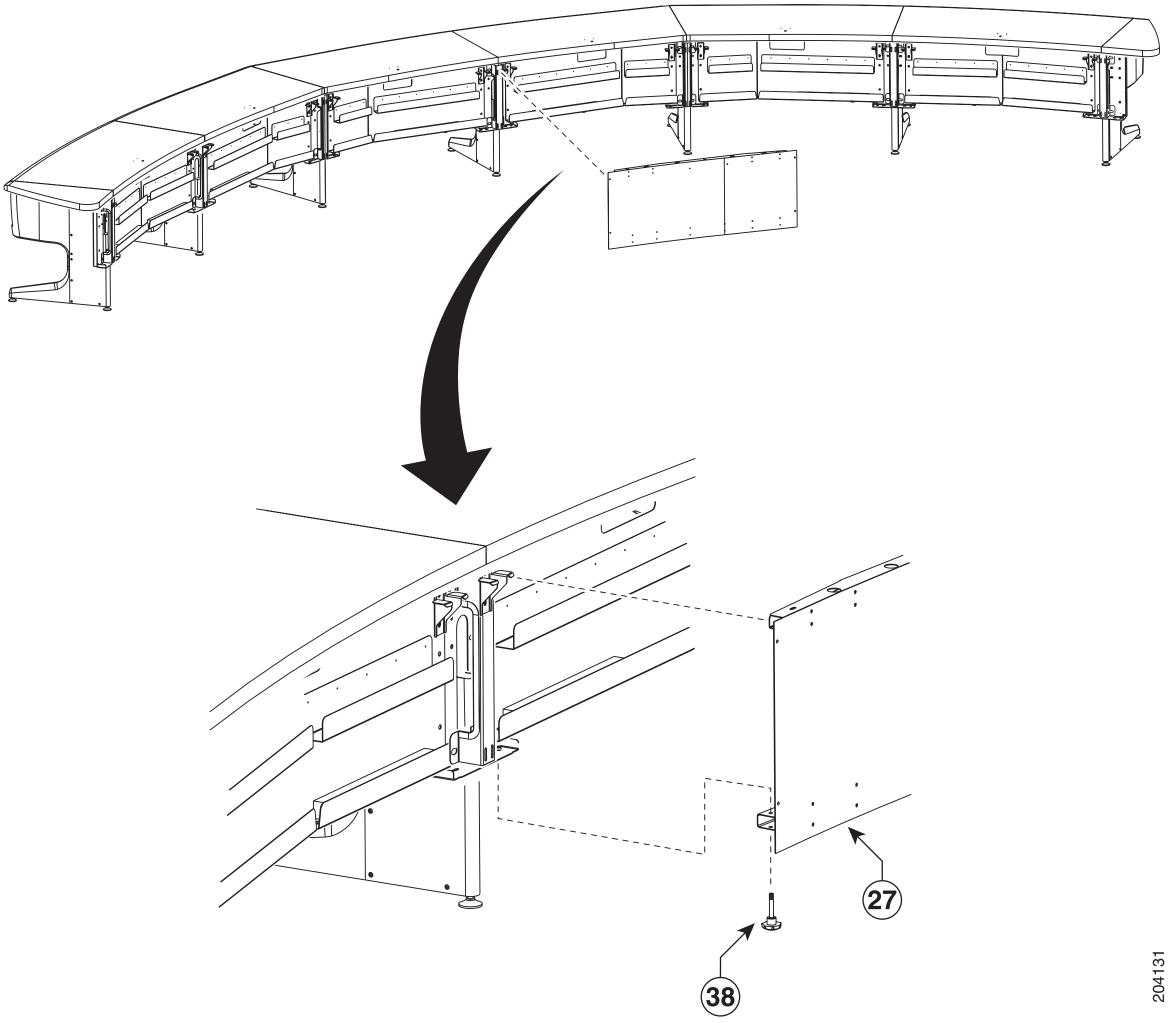
Figure 5-43 Microphone Assembly



Tip Label each microphone cable where it exits from the table. You attach the microphones to the Audio/Video Expansion Unit later in this procedure.

Step 39 Lift the privacy panel for table section 1 into position until it seats on the locating pins on the table assembly; then, use the plastic knob screws to loosely attach the privacy panel from below.

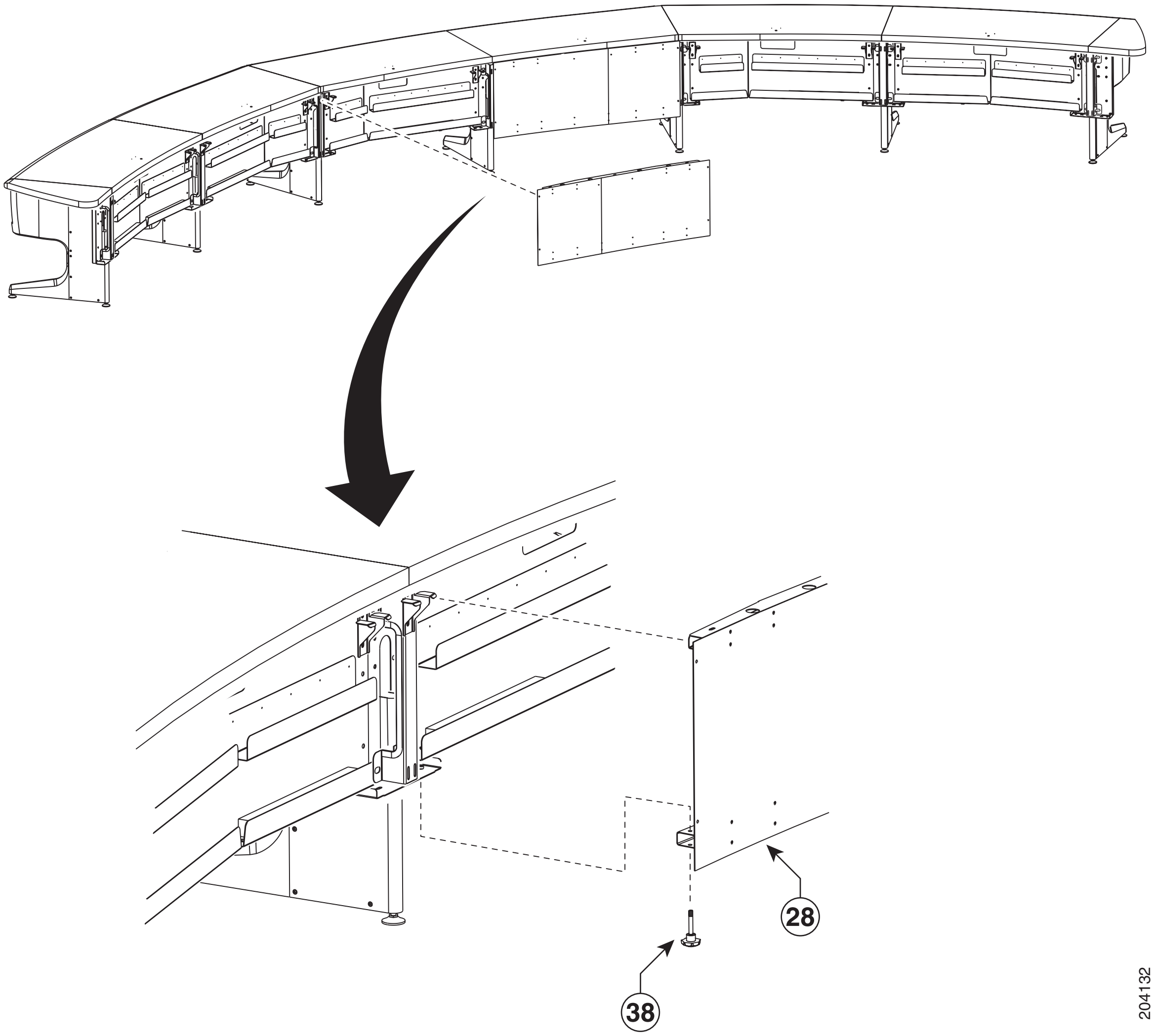
Figure 5-44 Section 1 Privacy Panel



Note Do not fully tighten the screws until you attach all privacy panels. You perform final spacing adjustments after you attach the last panel.

Step 40 Attach the privacy panel for section 2 to the table assembly.

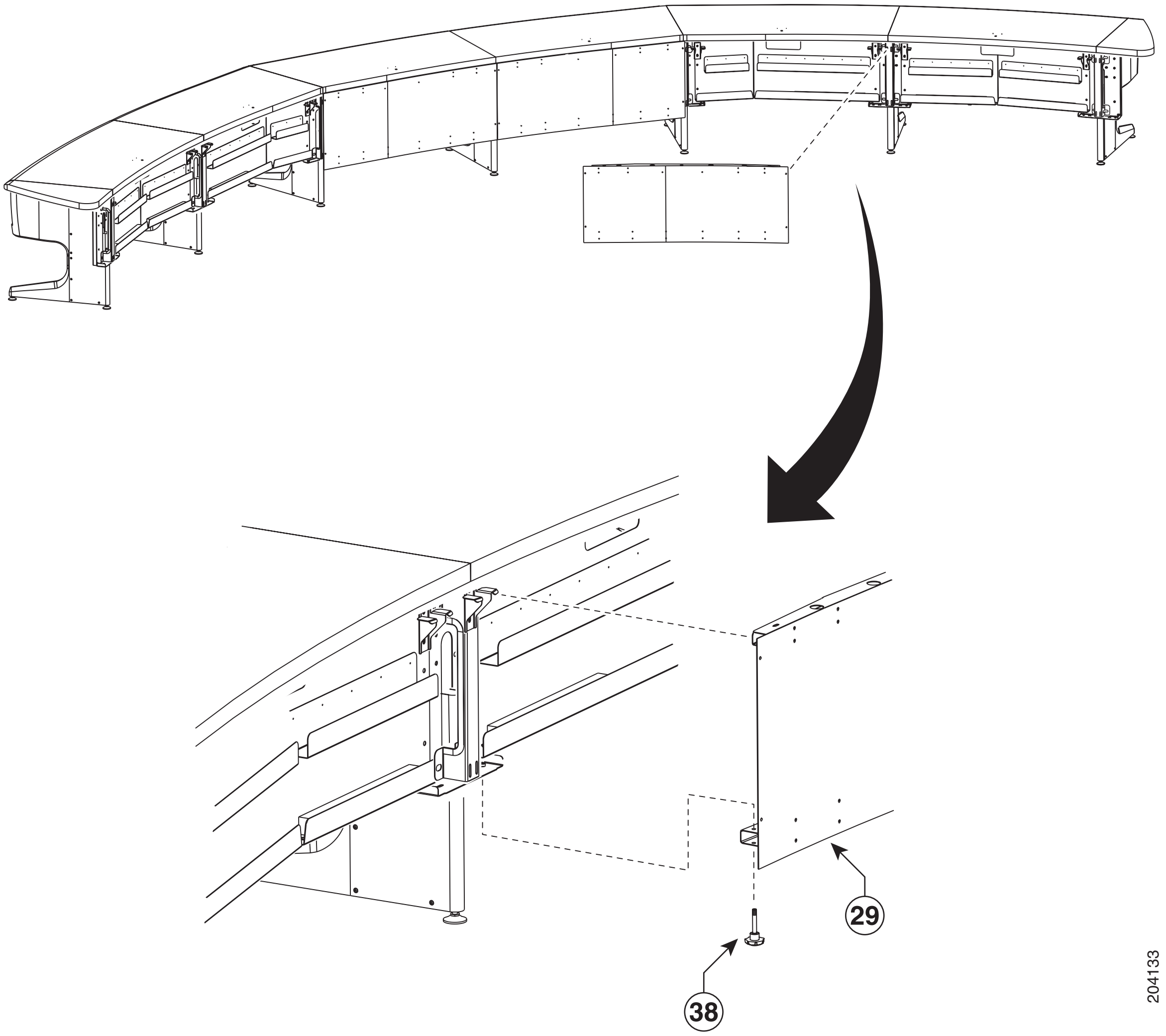
Figure 5-45 Section 2 Privacy Panel



Note Align the panels so that the seam between privacy panels 1 and 2 is aligned with the table top seam for table tops 1 and 2.

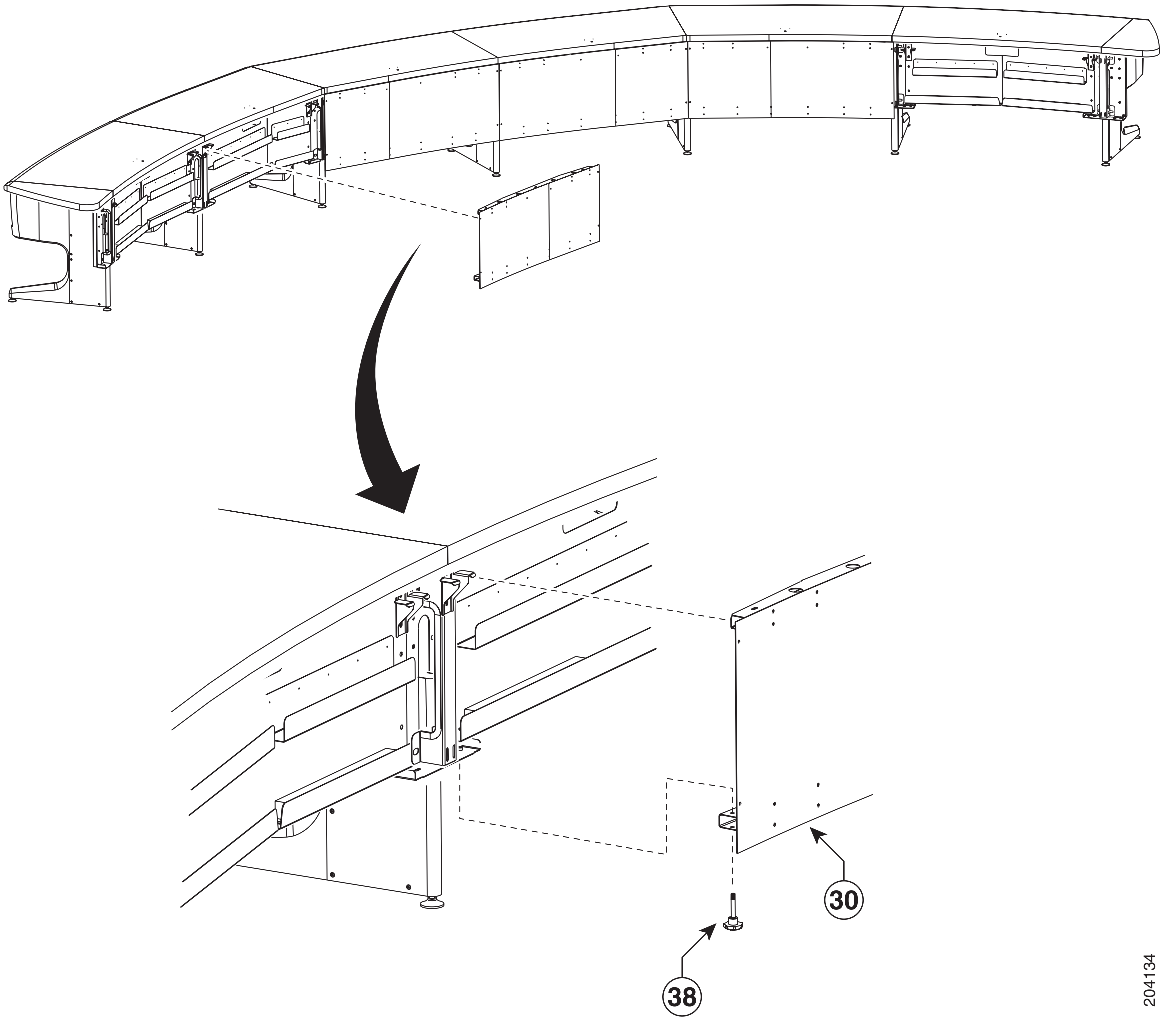
Step 41 Attach the privacy panel for section 3 to the table assembly.

Figure 5-46 Section 3 Privacy Panel



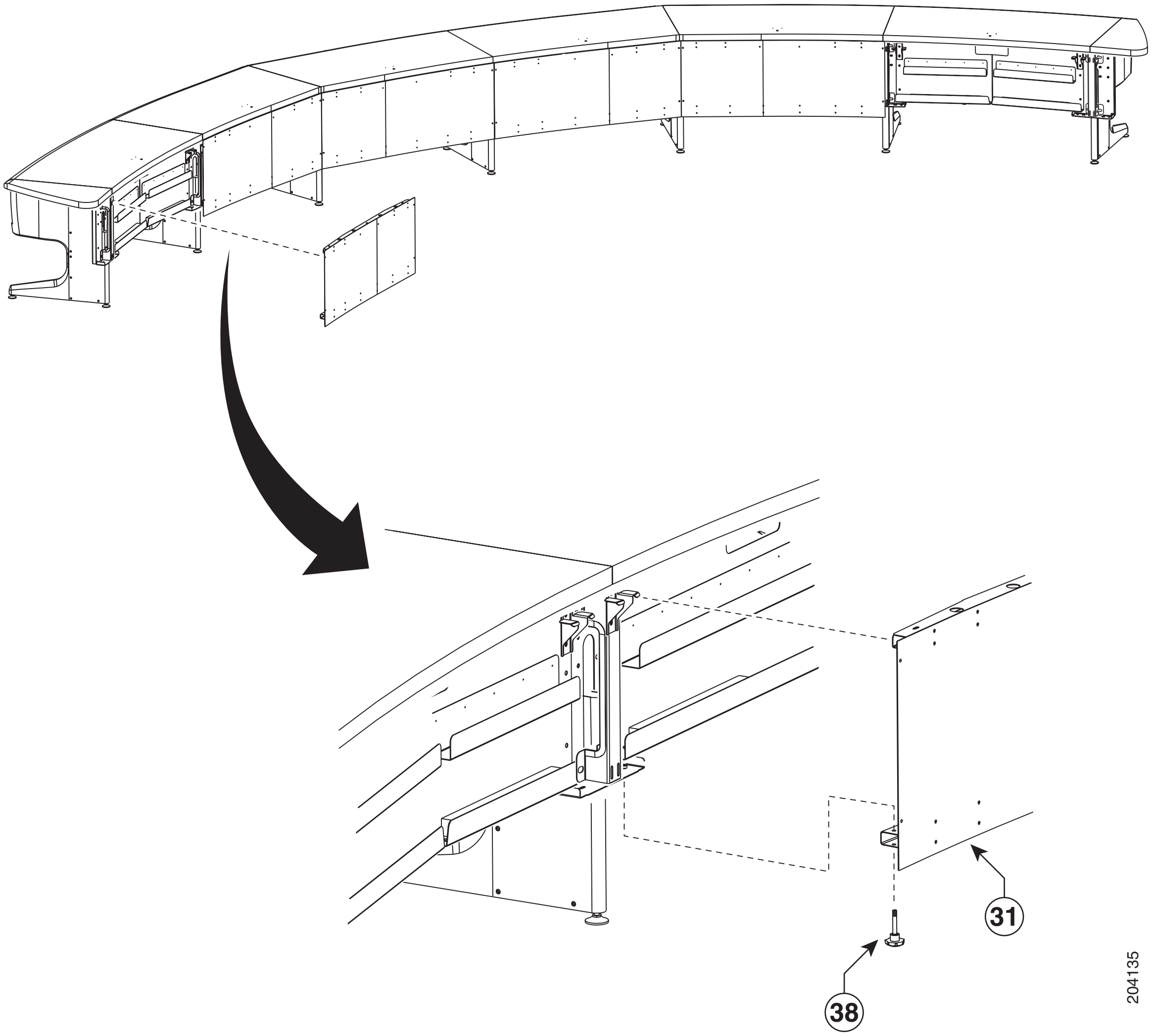
Step 42 Attach the privacy panel for section 4 to the table assembly.

Figure 5-47 Section 4 Privacy Panel



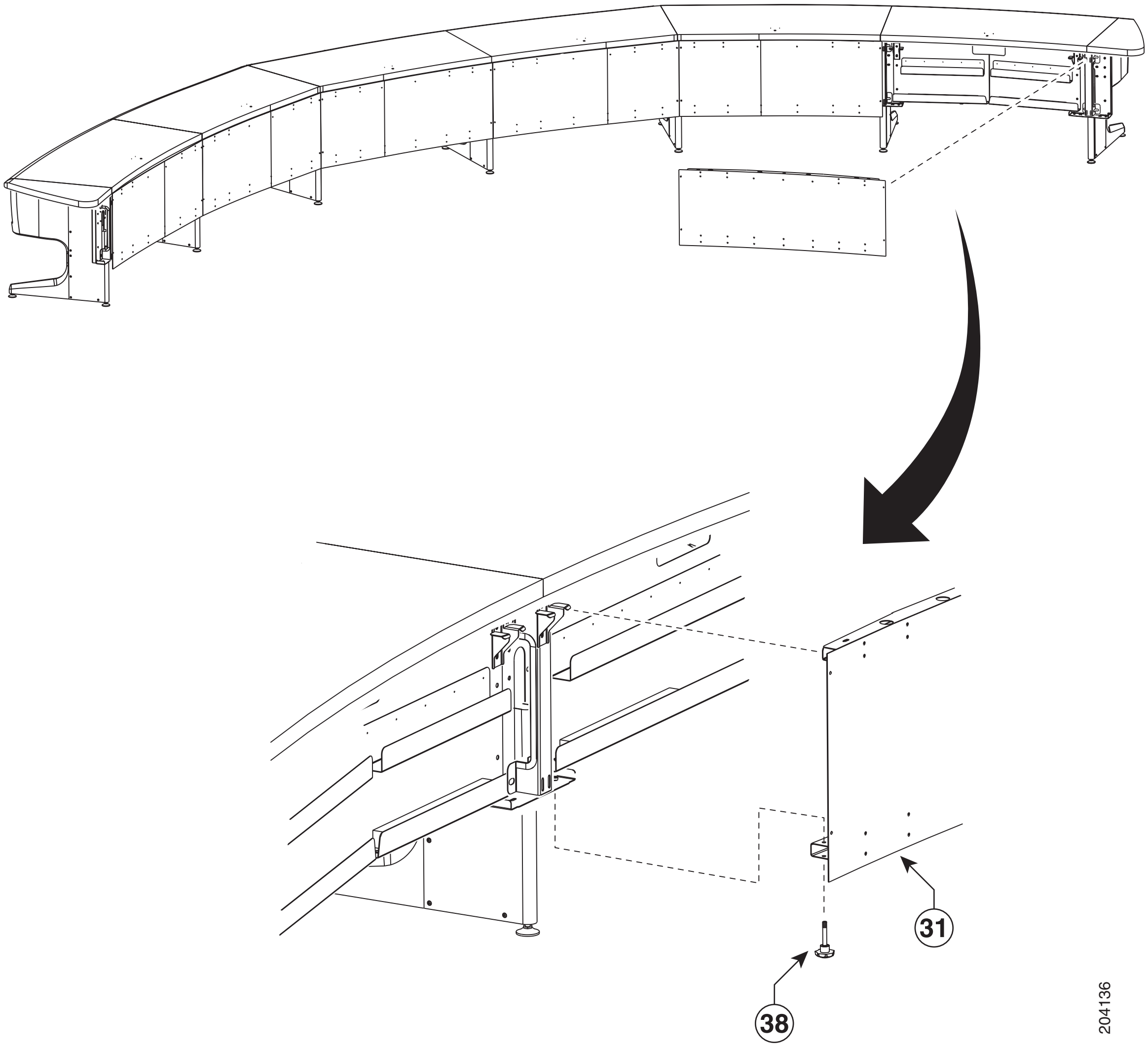
Step 43 Attach the privacy panel for left section 5 to the table assembly.

Figure 5-48 Left Section 5 Privacy Panel



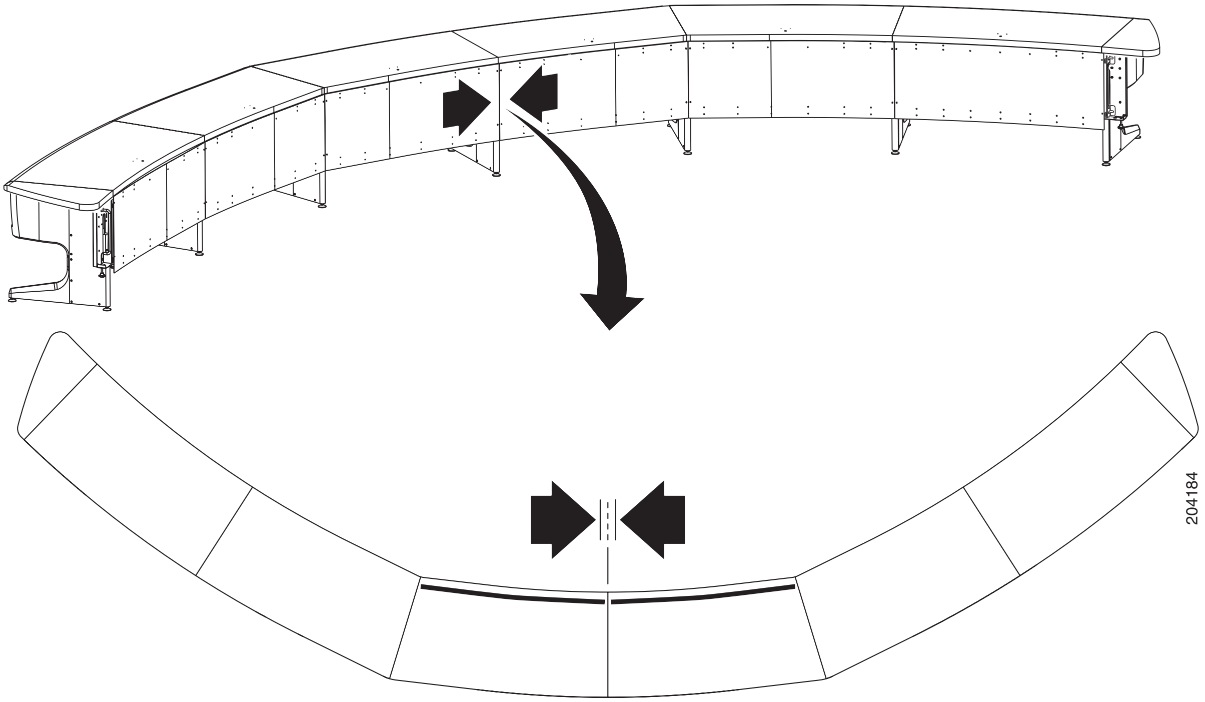
Step 44 Attach the privacy panel for right section 5 to the table assembly.

Figure 5-49 Section 5 Privacy Panel



Step 45 Adjust panels until all seams between the panels are even, then fully tighten the knob screws.

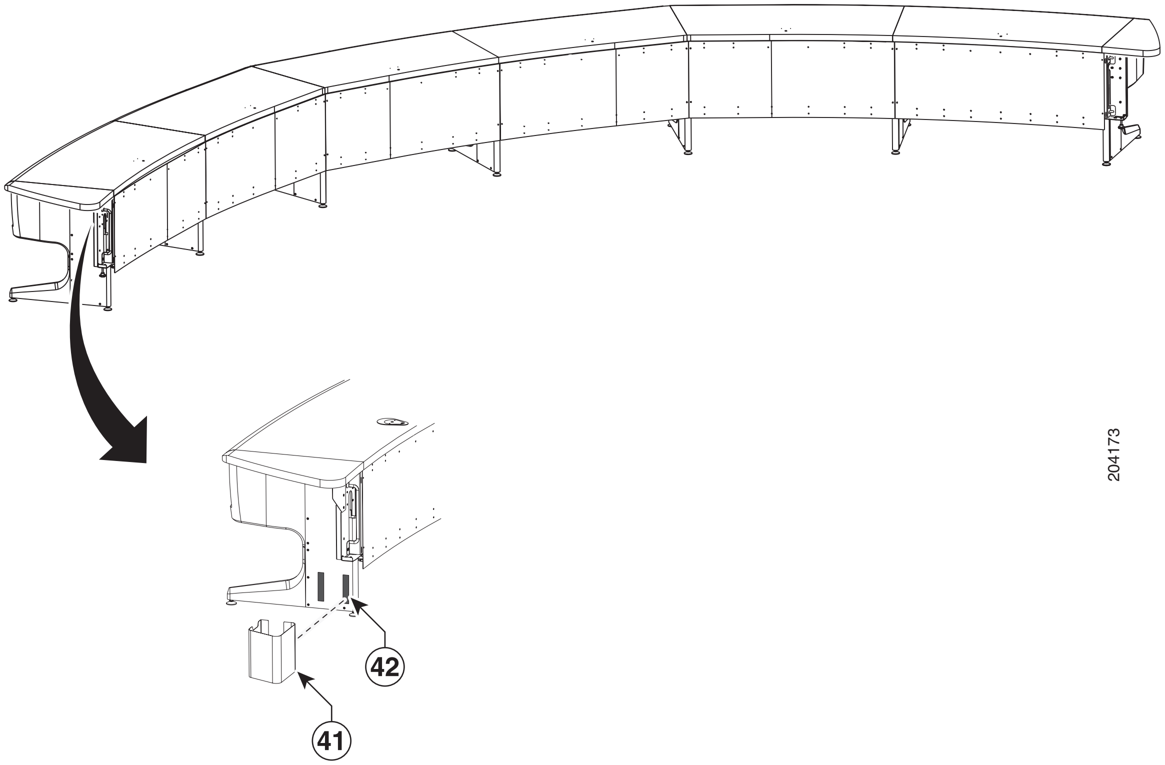
Figure 5-50 Adjusting the Privacy Panels



Note Start with the seam between sections 1 and 2. The seam between the table tops should align with the seam between the privacy panels.

Step 46 Attach the cable cover for the right end privacy panel.

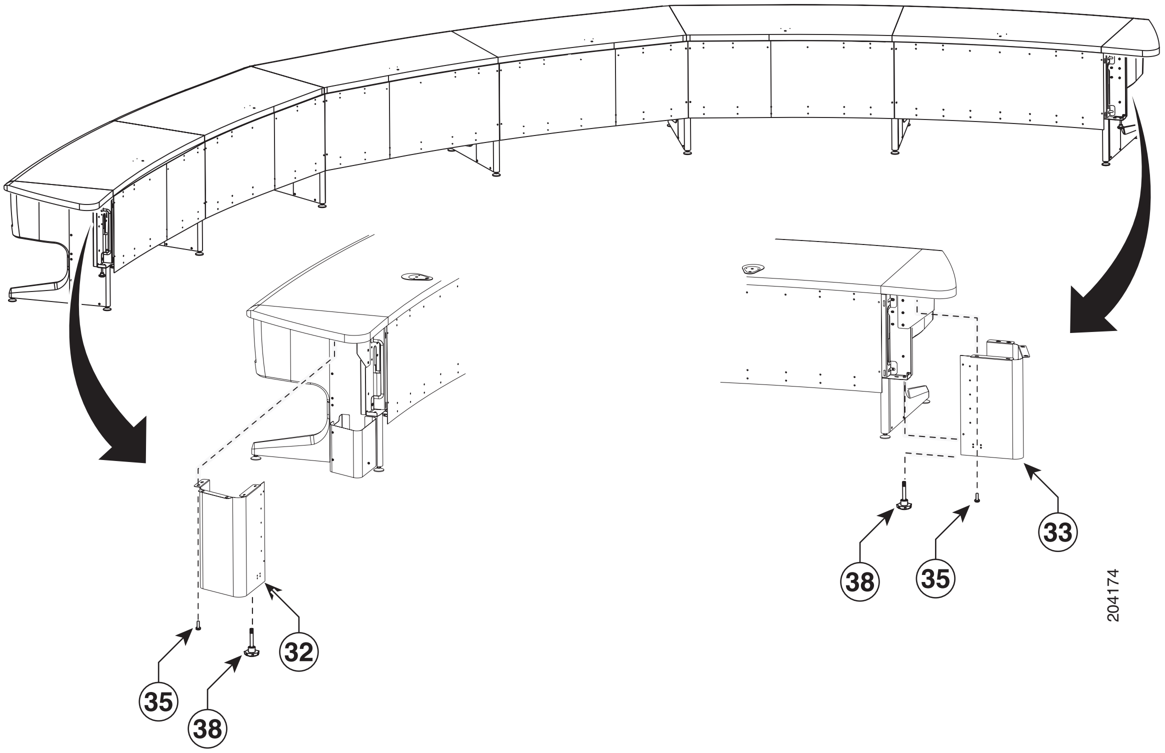
Figure 5-51 Privacy Panel End Pieces



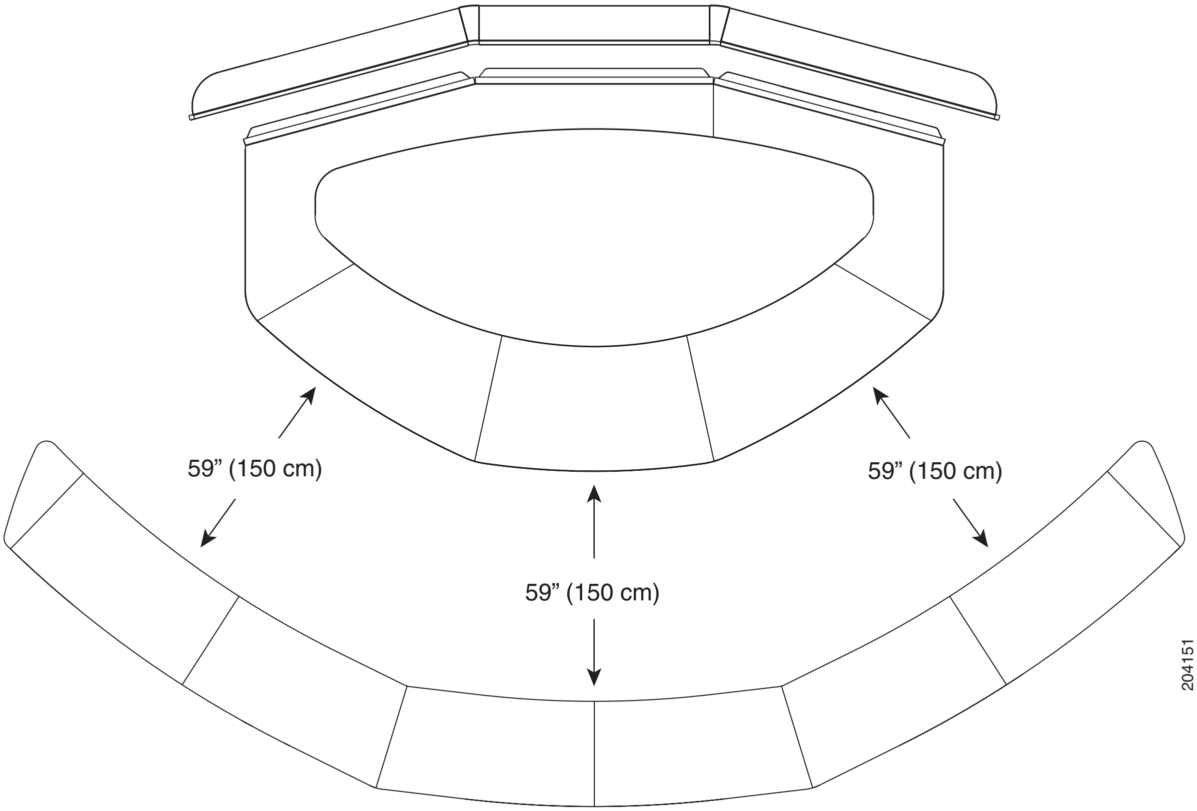
Tip Install the cable cover so that it hides the cables that come out of the right side of the table section.

Step 47 Attach the privacy panel end pieces and the cable cover for the right end privacy panel.

Figure 5-52 Privacy Panel End Pieces



Step 48 Position the second row table so that the trailing edge of the first row table is exactly 59 inches (150 cm) behind the leading edge of the second row table.

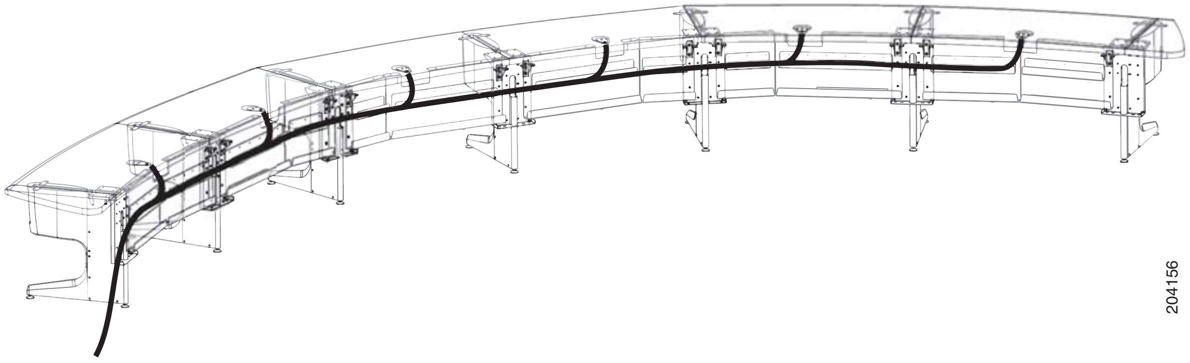


Attaching and Routing Cables

To attach and route cables for the CTS-3200 upgrade, complete the following steps.

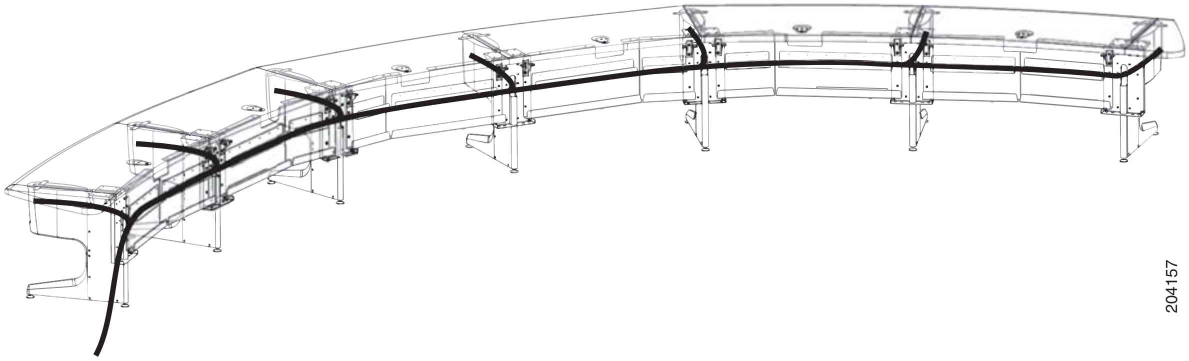
Step 1 Route the second row microphone cables.

Figure 5-53 Microphone Cable Routing



Step 2 If your installation uses wired Ethernet for the second row participants, attach the Ethernet cables to the modules in the foam bumpers and route the Ethernet cables.

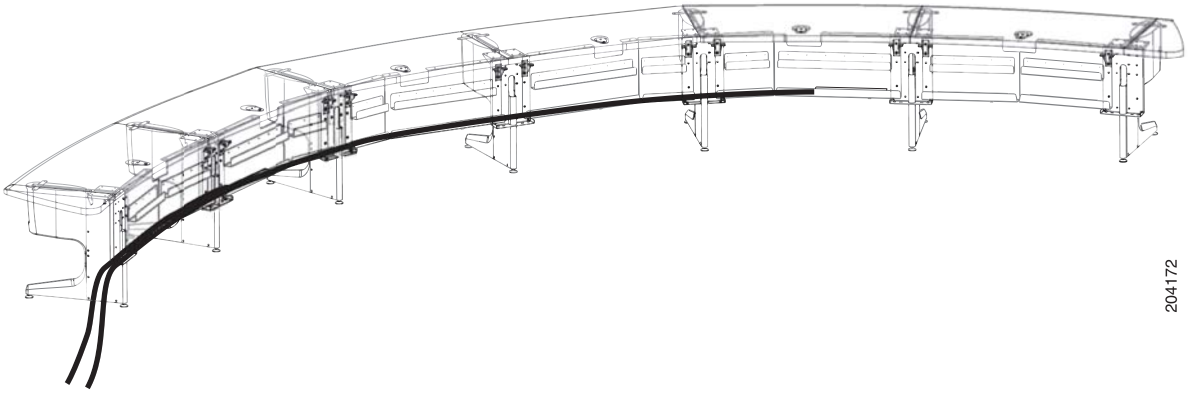
Figure 5-54 Ethernet Cable Routing



Note The Table Leg Signal cables are routed behind the Display structure, along with the other signal cables, but do not plug into any Codec.

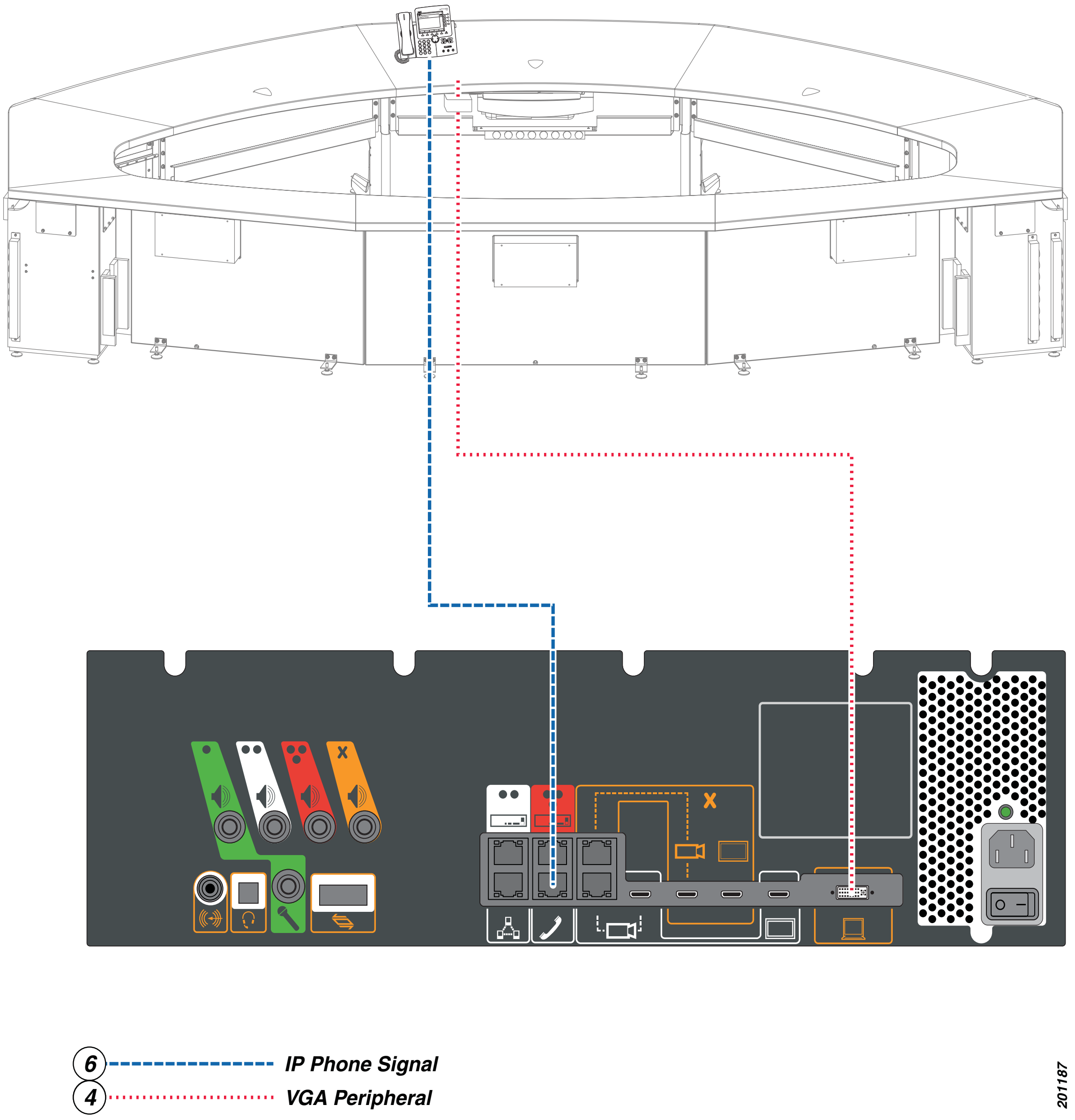
Step 3 Route the power cables for the second row table.

Figure 5-55 Second Row Table Power Cable Routing



Step 4 Route the cables for the Cisco Unified IP phone and VGA peripheral.

Figure 5-56 Microphone, IP Phone and VGA Peripheral Cable Routing

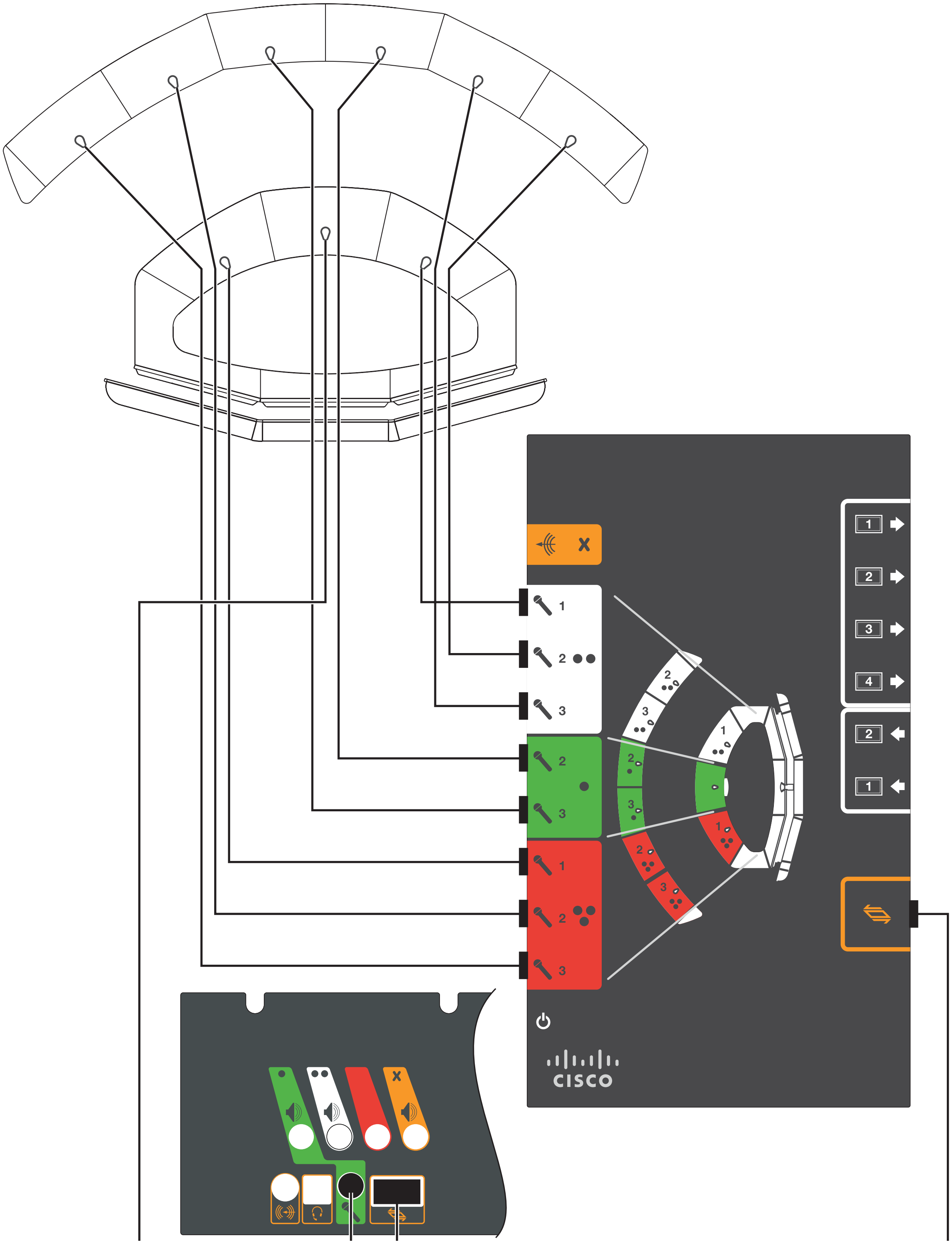


Note The VGA Peripheral cable is the free-hanging cable resting in the VGA module attached to the center Table segment.

Tip Before plugging cables into the Codec, label each one. For example, First Row Left Table Microphone, Second Row Center Table Microphone.

Step 5 Attach the microphone cables, noting that the center microphone on the first row (microphone 1) routes directly into the primary codec.

Figure 5-57 Cabling the Microphones

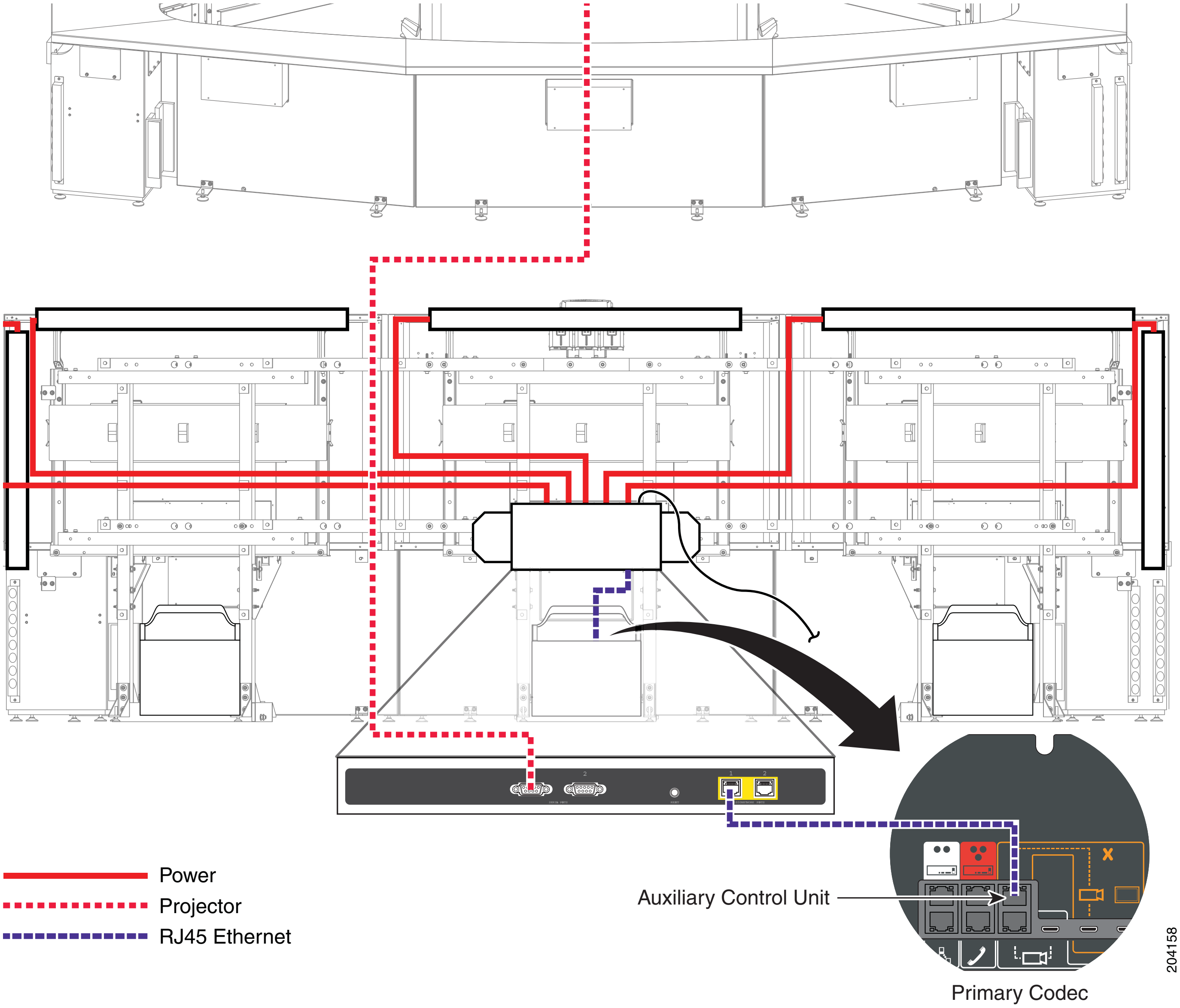


Note Figure 5-57 displays the rear view of the Cisco TelePresence System. Left and right are reversed.

Tip Before plugging cables into the Codec, label each one. For example, Left Speaker, Center Speaker.

Step 6 Attach and route the power cables for the lighting assembly. Connect the lights to the auxiliary control unit.

Figure 5-58 Cabling the Lighting Assembly and Projector Power Cables

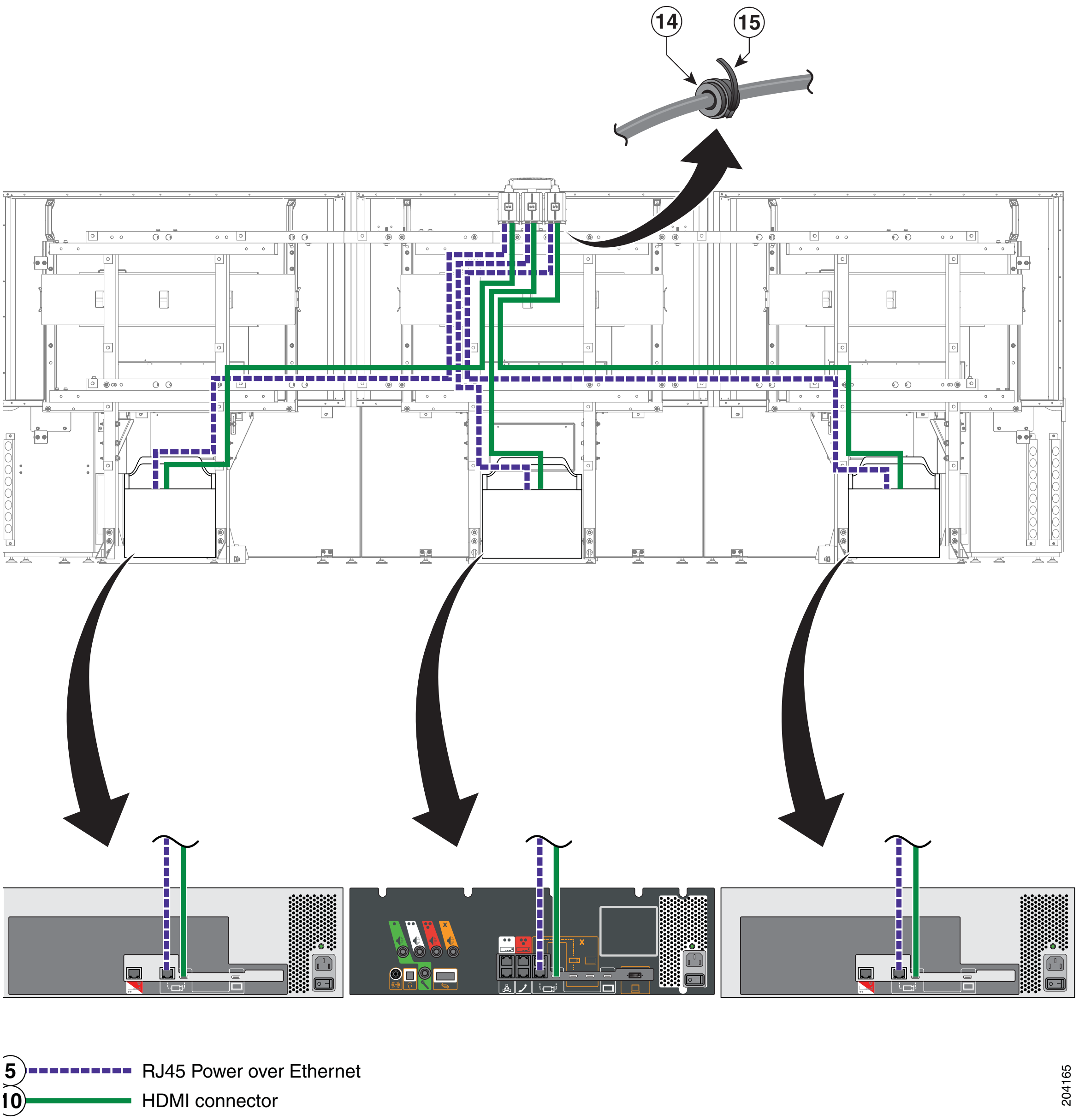

Power
Projector
RJ45 Ethernet
Auxiliary Control Unit
204158
Primary Codec

Note Figure 5-58 displays the rear view of the Cisco TelePresence System. Left and right are reversed.

Tip Before plugging the Light fixture power cables into the unit, label each one. For example, 5’ Left light, 4’ Right light.

Step 7 Attach and route the power-over-Ethernet and HDMI cables for the camera.

Figure 5-59 Cabling the Camera Assembly



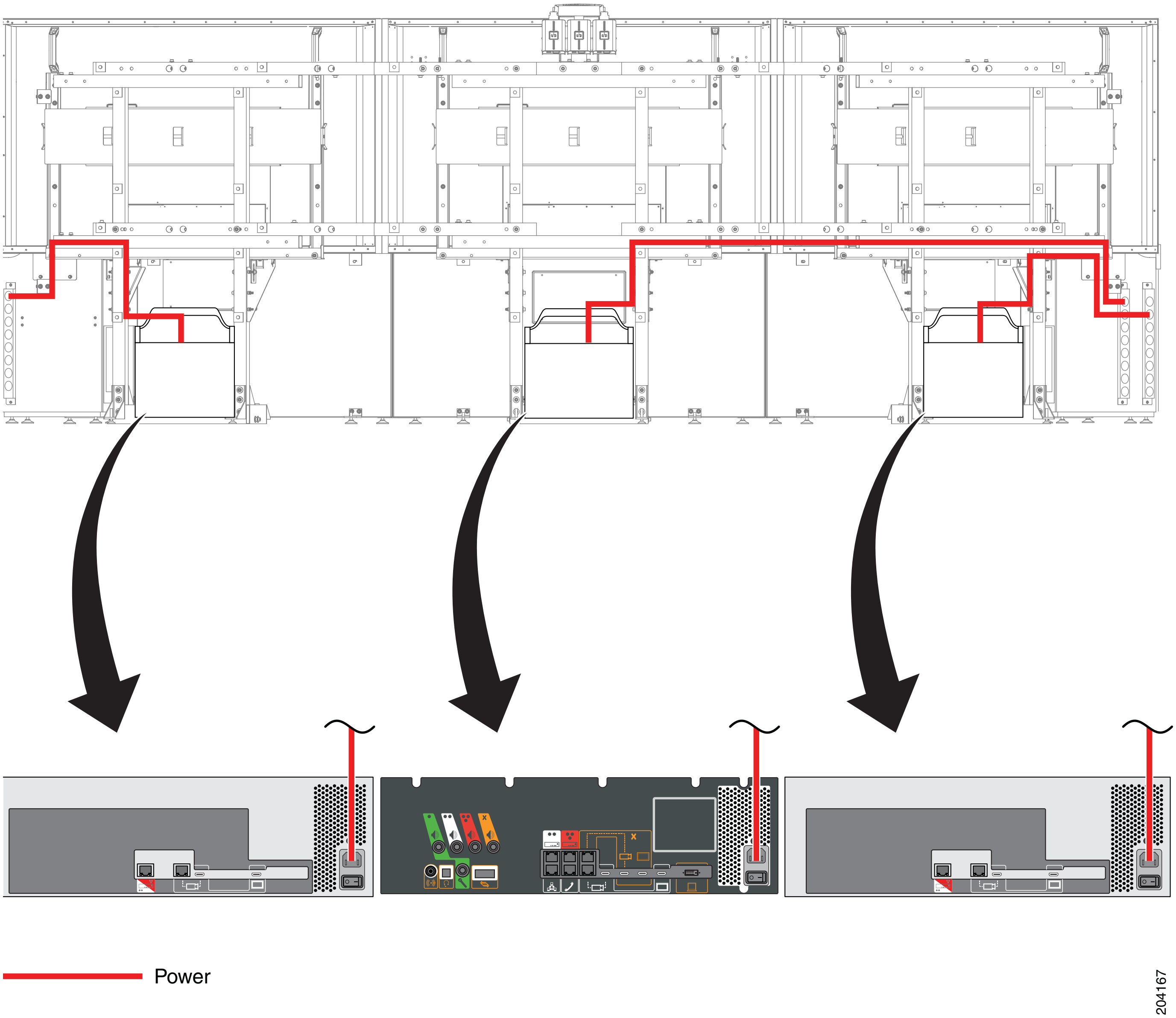
Note The camera cluster can experience radio frequency interference issues if the camera Ethernet and HD video cables are routed, bundled, or tied together. Cisco recommends that you route the Ethernet and HD video cables separately and use cable ties to tie them to opposite sides of the frame. In addition, attach the ferrite core and use tie wraps to secure them as shown in Figure 5-59.

Note Figure 5-59 displays the rear view of the Cisco TelePresence System. Left and right are reversed.

Tip Before you plug cables into a codec, label each cable.

Step 8 Connect the power cables for the codecs.

Figure 5-60 Cabling the Codecs



Powering On the System

To power on the system, complete the following steps.

Step 1 Reconfigure the codec for the new MAC address in Cisco Unified Communications Manger by performing the following actions:

- **a.** Open a browser on a computer connected to the network.
- **b.** Access the Cisco Unified Communications Manager interface.
- **c.** Change the MAC address for the device to the MAC address for the new primary codec.

Step 2 Power on the Cisco TelePresence 3000 by turning the power switches to the On position on the two left PDUs, single right PDU, and auxiliary control unit.

Six check boxes display on the lower right corner of the center display screen.

Step 3 Wait while the system checks each check box and clears the screen.

The system IP address displays on the lower right corner of the center display screen.

Step 4 Write down the IP address. This is the address of the primary codec.

Step 5 In the computer browser, type in the IP address of the primary codec unit.

Step 6 Enter the required information at the login screen. The Cisco TelePresence Administrator window appears.

Step 7 Verify the status of the Cisco Unified Communications Manager (seen in the lower left portion of the window) is **Enabled/Up**.

Step 8 Select **Hardware Setup** to verify the cameras, displays, speakers, and microphones are working properly.

Step 9 Navigate to the **Device Information > Configuration > CUCM settings** window, then perform the following actions:

- **a.** In the Certificate Trust List (CTL) area, delete the CTL from your system by clicking **Delete CTL**.
- **b.** In the Use Configuration TFTP Server area, click **Automatic** to set TFTP conditions to their default value and remove any alternate TFTP servers.
